Hospital Progress

Vol. V NOVEMBER, 1924 No. 11

EXTERIOR VIEW OF MOUNT ST. MARY'S.

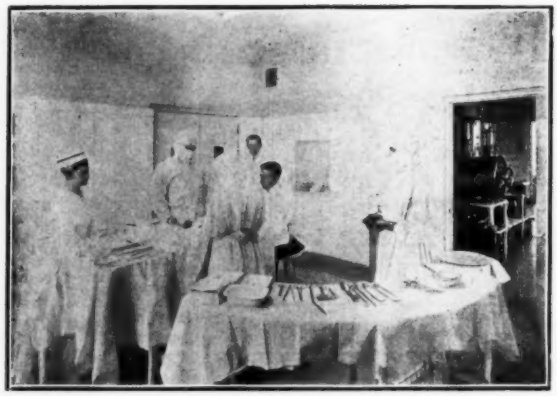
A Panorama of Mount St. Mary's Hospital

NIAGARA FALLS, "the wonder city" as it is called throughout the world because of its miles and miles of unique beauty and picturesque and historic scenery, claims another asset to its wealth of glory, Mount Saint Mary's Hospital.

Situated as it is on the highest point of the city, within a few minutes' walk of the great Falls, the hospital attracts many seekers of natural beauty who are likewise interested in the care of the sick. When visitors have satisfied themselves with the splendor of the madly prancing waters and have listened to the deafening roar of the rushing and falling mass, they are glad to visit the quiet, imposing neighboring hospital where they may study the interest and care bestowed upon the suffering. Scarcely does such a visitor leave after he has been cheerfully escorted through the building, without an enthusiastic expression of approval and esteem.

Mount Saint Mary's Hospital is under the management of the Sisters of the Third Order of Saint Francis of Buffalo, N. Y., and was erected under the supervision of members of this community in 1912. It is a structure of non-porous red brick, trimmed with gray stone, whose main body reaches to a height of seven stories and whose wings terminate in roof gardens on the fifth story. Much thought has been given to the details of scientific care, physical and mental comforts of the patient, equipment, and method of service. In planning the building

ONE OF THE MEN'S WARDS.



AN OPERATING ROOM.

it was desired that neither of the two ideals, sanitation and beauty, should be sacrified to the other. This result has been attained as evidenced by the composition floors curved up to form a baseboard, and by the plain birch doors whose beautiful polished surfaces present no crevices for the lodgment of unwelcome germs.

First Impressions

On entering the wide, airy, well-lighted vestibule one is impressed with the atmosphere of peace and quiet that pervades the institution. On the left is a spacious and richly-decorated reception hall. Directly opposite is the main office, with a smaller private department for the officers of the hospital. The vestibule leads to one of the wide, attractive corridors which run the length of the building on each floor and connect with the corridors of the wings. In the alcoves of these corridors on small wicker tables are bouquets of cut flowers and beautiful flowering plants.

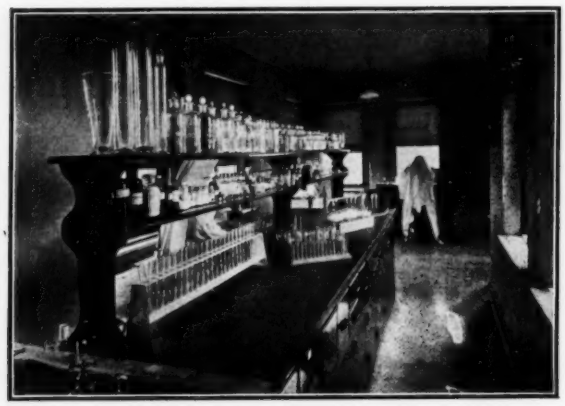
Leading from the first floor corridor directly opposite the entrance is a large room given over to the use of the attending physicians. Many an informal discussion takes place here among the doctors who drop in for a few minutes between cases.

The bed capacity of the hospital is one hundred and sixty-five. There are a great number of semi-private and private rooms as well as suites consisting of bedroom, bath, and sitting room. All patients' rooms are outside rooms. Each floor is provided with two sun parlors furnished with easy chairs and tables so that patients who are able to leave their apartments may find a pleasant resting place. At the east end of the south corridor on each floor is a ward whose windows face south, east, and north. Double doors on the north open onto a large porch where the convalescents may rest when the weather permits. Through these conveniences, patients occupying the wards are assured the same amount of comfort, fresh air, light, and sunshine as those in private rooms.

In the center of the building on each floor are located the service rooms, viz., medicine, linen, and utility rooms, all thoroughly equipped with the latest devices for rendering effective and sanitary service to sick patients, with the least possible expenditure of time and energy.

Surgery and Laboratories

On the fifth floor are located the three principal operating rooms, removed from all disturbing influences, with excellent light and ventilation, where the surgeon is able to give his best service to the patient under his care. Between the operating rooms are the sterilizing rooms in which everything that is used in this department is subjected to high power steam or electric sterilization. The fourth operating room is near the ambulance entrance on the first floor to provide for immediate action. This department is in constant readiness so that the incoming patient need not be de-



THE LABORATORY IS LARGE, LIGHT AND FULLY EQUIPPED.

THE X-RAY DEPARTMENT.

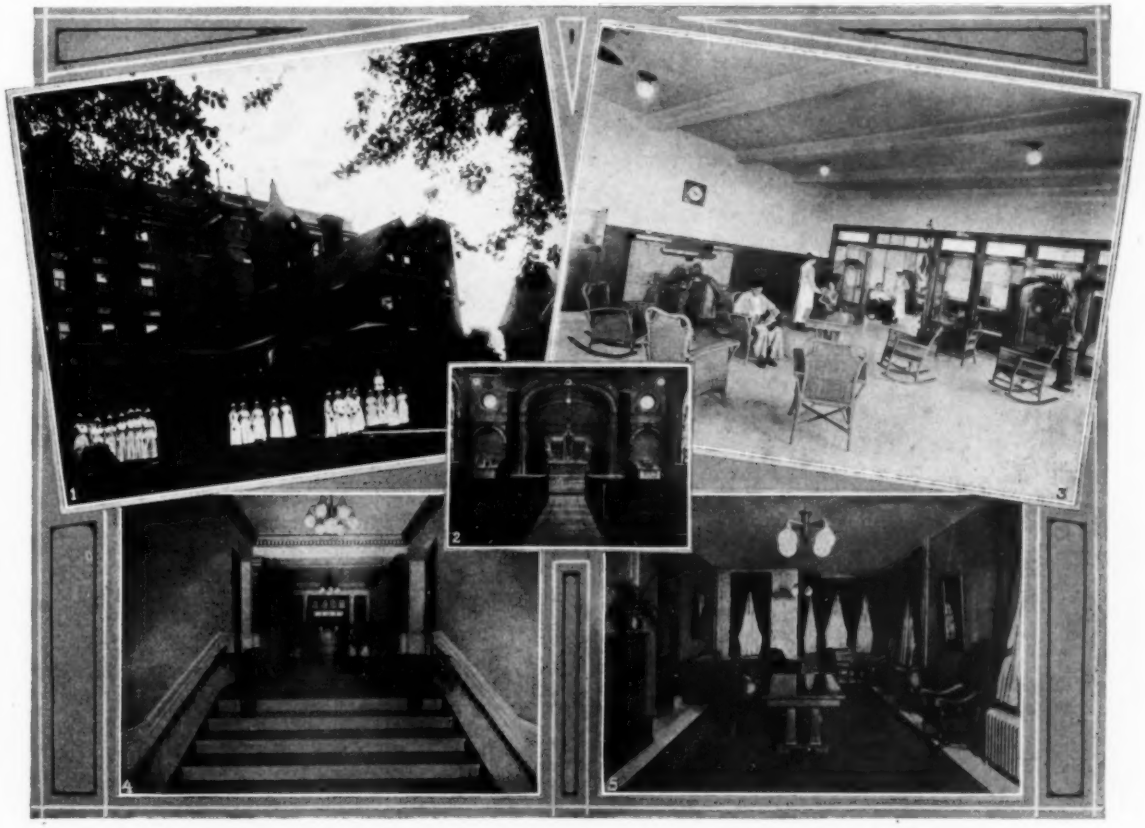
prived of an opportunity for recovery by even one minute's delay.

Very frequently cases need radiological examination, and for this there is provided a well-equipped x-ray department, which, like the three principal operating rooms, is located on the fifth floor. It consists of the radiographic room, the dark room, and a large room for fluoroscopic work. In the first room are the radiographic table, the latest stereoscopes for the examination of radiographs, a display frame and filing case in which the films are kept, a small reference library bearing on this branch of hospital work, and a desk with typewriter for the technician's reports. The many films filed away in the department reveal what a great asset this service has been in the development of the hospital. Connected with this room by a small hall is the dark room stocked with all the necessaries for developing films. Nearby is the fluoroscopic room in which every kind of fluoroscopic work is done. Here, as in the operating rooms, the equipment is of the most modern type.

The laboratory is one of the most important departments of the hospital. It is located on the sixth floor in the main building and is well lighted, towering two stories above the wings and having windows on three sides. The laboratory is shaped like the letter L, in the stem of which stands the laboratory table with rack well supplied and drawers and cupboards arranged for filing or storing stock in bulk. In the base of the letter L is located the table for microscopic work and other necessary equipment. This department is in charge of a trained technician and a Sister R. N. assistant. Here are performed the usual routine urine and blood examinations in addition to the other tests ordinarily made by technicians. The work of this department is increasing daily on account of the growing demand from the out-patient department lately installed.

Important Departments

The second floor of the east and north wing is given over to the obstetrical division. A growing public realization of the great importance of hospital care during even the simplest obstetric procedure has been proven in Saint Mary's Hospital. The work in this department has increased to such an extent within the last few years that it has become necessary to open another nursery and ward.



VIEWS OF MT. ST. MARY'S HOSPITAL, NIAGARA FALLS, NEW YORK.
1—The Nurses' Home. 2—The Chapel. 3—A Sun Parlor. 4—Main Lobby. 5—Parlor.

The pharmacy is on the ground floor in charge of a registered pharmacist and an assistant. It is connected with the other floors by an electric lift. All prescriptions and orders calling for pharmaceutical products are sent to the pharmacy by means of this conveyance and returned to the various floors in the same way. In addition to all hospital orders prescriptions from the out-patient department are dispensed in this pharmacy.

In the year 1920 a record room was installed. As

VIEW OF THE CHAPEL AT MT. ST. MARY'S HOSPITAL, NIAGARA FALLS, N. Y.

records have been considered an index to the kind of work done in the hospital, much care has been taken in selecting methods of taking and filing the histories. The department is in charge of a Sister R. N. who has had wide experience in general and special hospital routine and recognizes the importance of the record. This room is located on the first floor entirely removed from the other offices to safeguard the privacy of the records, yet near enough to be easily accessible to those who need to consult this department.

Food Service

Another room of much interest to all connected with the hospital is the kitchen, located on the ground floor in the center of the building. It is provided with all the modern electrical devices such as bread and meat slicer, coffee grinder, potato peeler, etc., which have robbed the work of much of its drudgery. The cooking is done chiefly by steam and electricity. After careful preparation the food is quickly lifted by an electric server to the various diet kitchens located in the center of the building on each floor, where much stress is laid upon serving the meals hot and arranging the trays tastily. Each diet kitchen is equipped with steam table, electric heater, and a sterilizer for dishes and other tableware.

The painstaking care with which the meals are prepared includes an arrangement to protect the various food articles from coming in contact with ice vapors. The hospital has its own ice plant from which coils lead to the numerous refrigerators throughout the building. On the same floor and only a few steps from the kitchen are the four large refrigerators; one for meat, another for milk and butter, a third for fruit, and a fourth for freezing garbage. This way of caring for the garbage is a great asset in doing away with all dangers of decomposition before the final disposal. In addition to these four central refrigerators there is one on each floor in the diet kitchen or serving room as well as in the serving rooms connected with the Sisters', guests', and nurses' dining rooms. After the water for drinking purposes has been distilled and oxygenated it is cooled by means of coils from the ice plant before it is circulated through the building to the drinking fountains on the various floors.

The hospital is also well equipped with modern machinery for generating its own electricity. All light, electricity for cooking, and all power for operating the elevators, electric lifts, and the heavy laundry machinery, is generated on the premises.

Comforts

The Palm Room is an attraction and a comfort to the convalescents who are not able to leave the hospital. It is the brightest and best-lighted room in the whole institution and is attractively furnished in wicker. A piano, victrola, and radio cheer the hospital atmosphere and tend to help the patient in pleasantly spending the last few days of waiting for returning strength. If the weather permits, patients may enjoy the fresh air on one of the roof gardens connected with the Palm Room.

Saint Mary's greatest comfort, however, both to convalescents and visitors, as well to all connected with

A GROUP OF NURSES ON THE GROUNDS OF MT. ST. MARY'S HOSPITAL, NIAGARA FALLS, N. Y.

the hospital, is the chapel. It is as some one has beautifully said, "a little breath of heaven." Through the beautiful and richly-colored windows the light falls softly on the mahogany pews which harmonize with and relieve the whiteness which might otherwise seem cold. Everything else in the chapel is white marble—altars, altar rail, statues—even the holy water font is a beautiful angel of carrara marble. To supply the one thing necessary comes a strain of music sweet as an angel's song. Some one has touched the Choralcelo, the wonderful electrically-operated organ, which by means of the "echoes" located throughout the building, carries its message of hope and cheer to any or all patients, at the discretion of the operator.

The latest experiment of the hospital is the out-patient department, opened on December 8th, 1923, as a result of a very successful financial campaign. The purpose of this clinic is to care for the needy sick of Niagara Falls. Social service has been inaugurated in connection with this department. A social history is taken of each patient, after which a thorough physical examination is made. The patient is then sent to one of the treatment clinics. These are the medical, surgical, gynecological, nose and throat, and dental. A children's clinic has also been installed. The x-ray and laboratory work is done at the request of the physician. The patients are visited in their homes, where medical and social advice is given, and cooperation with the different agencies in the city has been a great help in making the clinic a success.

Mount St. Mary's Hospital takes a just pride in its training school, with approximately thirty-five nurses in training. The practical work, demonstrations, etc., are under the personal direction of the superintendent of nurses, and lectures are given by the specialists on the staff, each in his chosen branch. Besides the studies required by the state department at Albany, other courses are frequently given by the professors of Niagara University.

Finally, in constructive service, accommodations for guests, hygienic surroundings, fresh air, and sunshine, together with the genial atmosphere created by those in charge of the hospital, Mount St. Mary's has come by all the praise that is lavished upon it. This hospital has been standardized and is in class A. Nothing is being left undone to keep the hospital force imbued with the full importance of their service for God and mankind.

The Necessity of Adequate Accounting Records in Hospitals*

A. F. Van Iseghem, School of Commerce and Finance, St. Louis University.

Business and business methods have their own distinct place and claims in every enterprise where material things are to be handled in an efficient and successful manner. The very administration of the church itself is not without its economic and financial phases. Indeed, the proper handling of these special phases contributes much to the fuller attainment of its supernatural objective. It is only with such a purpose in view that this subject is presented for your consideration.

It is not within the scope of this paper to attempt to lay out a system of accounting for hospitals. It is not desirable to attempt to adopt a uniform system with the expectation that this uniform system will adjust itself to all conditions. It is possible, however, to establish uniform accounting principles or methods which will take care of variations in the size of the institution and the organization of its personnel. The limitations of this paper, therefore, require that the principles governing hospital accounting be given first consideration.

It is of interest to note the great progress made by our hospitals in obtaining and keeping accurate information in regard to the number of beds and free beds, number of patients treated, and various other data pertaining to the out-patient department, social service department, etc. They have long since been impressed with the importance of recording this data. They have learned the benefits derived from statistical records in the comparison of the same. No less is the need for intelligent and accurate accounting records.

To Meet Responsibilities

This need applies alike to all classes of hospitals—large or small—regardless of the method in which they are financed or the source from which they receive their income. Each hospital is an incorporated institution and has, therefore, individual legal responsibility in addition to its professional duties. Also, there are other distinct responsibilities which can be summed up as follows:

1. Responsibility to itself as an Order.
2. Responsibility to the public.
3. Responsibility to the head of the diocese in which it operates.

Touching on the first of these, the responsibility to yourselves as an Order; your Order is of a perpetual nature necessitating succession of authority. It is of valuable assistance to the incoming superior to be able readily to ascertain the financial status of the institution of which she assumes charge. A comprehensive view of the financial conditions for the past years and a history of operations of the institution would afford her a means of guidance for the future.

The second, responsibility to the public. As many hospitals are partly or wholly established and are largely maintained by contributions from the public,

*Read before the Missouri-Kansas Conference in St. Louis September 2nd.

such institutions should be in a position when called upon, to furnish reports as to their assets and liabilities, revenue and expenses, work accomplished and the cost of same, and general financial progress. As a result of their inability to give such information hospitals often do not participate in joint funds collected in communities through local associations for charity.

The third, responsibility to the head of the diocese; he is consulted to obtain permission for the establishment and operation of each institution. It is necessary that he be informed of the financial condition of each institution periodically in order that he may maintain a record or file of the same. This information is used for statistical purposes and should, therefore, be accurate. Often it is merely an estimate, far from being correct.

It is not difficult for us to see that where such responsibility exists, accountability to others naturally follows. That is, responsibility to others entails accountability to them. This can be satisfied either by (1) direct personal knowledge and supervision, or (2) by means of records, both of which give control over an institution. Control, as you know, is one of the primary objects of accounting.

Institutional Control

(1) In the case of small hospitals, where it is possible for the superior to exercise direct personal supervision over all branches of activities, the accounts and statements should be simplified accordingly. These smaller institutions permit observation, which decreases the need of more elaborate detail, owing to the fact that the results are in direct personal control.

(2) As the size of the hospital increases, the features of direct supervision are proportionally eliminated. It becomes necessary for the superior to employ outside help and delegate various responsibilities. It is then that the factors of error and dishonesty may enter into the situation and must be guarded against. In proportion to the size of the hospital we have the increasing necessity of providing some control other than a direct personal one. Such control, then, is obtained by means of records.

Again, control makes for efficient management and that is the basis for a well ordered and financially successful institution. Obtaining these records makes it possible to analyze and compare results of different periods and enables one to determine the degree of efficiency attained. It also provides the information necessary to take steps to reach the maximum efficiency.

Records, therefore, being necessary for control, we find indispensable in the attainment of efficient management. They are divided into three groups:

1. Financial.
2. Operating.
3. Statistical.

To justify the expenditure of time and money, and the effort required to prepare and maintain accounting records, there must be some benefit derived from such records when they have been compiled. They must help, and not hinder, the work of the institution which creates them.

Advantages of Records

You are already familiar with some of the advantages derived from statistical records. Let us see just what financial and operating records mean in an accounting system, and how they can help us.

Is there a real need for hospital accounting?

You may say, "Why? Do we not know what we possess? Do we not keep an account of our receipts and disbursements for the month and year, make comparisons, recapitulations of our various expenses, and can we not tell at the end of the year how much of a deficit or how much profit we have made?"

Are you quite sure that you can?

It is most probable that you have included in your expenses a number of items that are additions or improvements to your property and equipment, and charges that should be apportioned over a period of months or years, such as insurance, and that you have omitted a number of direct charges to operation, that do not come through your cash book, as depreciation on your property and equipment, etc.

Can you tell exactly what it costs you to operate not only the entire hospital and community, but each department and each room? The last item, room cost, is certainly very important from the standpoint of making your charges sufficient to cover your cost, and yet not too great. This is a point on which your main source of income depends. Unless you have a correct and comprehensive allocation of charges, it is impossible to get your true costs.

In these costs we have the features of depreciation and insurance to recognize. We are familiar enough with the general idea of insurance. But it may not be amiss to mention what is commonly understood by depreciation. By depreciation we mean the wear and tear of properties and their resulting gradual reduction in value; for example, a delicate instrument is bought today and in a year's time it is worn, dull, difficult to handle. Replacement or costly repairs will soon be necessary. All instruments, furniture, machinery, and buildings are subject to this same depreciation, and it is not difficult to see how important it is to note the loss thus sustained. These are not merely theoretical considerations, but factors that are vital for you to weigh, since they are actual charges to the operation of your institution.

Do you always know what you owe for current bills for which funds must be provided? Do you always discount your bills? Your bills should be discounted; it reduces your operating cost and helps establish your credit with commercial and supply houses with whom you deal, thereby making it possible for you to purchase on credit more easily. When an institution has not

working capital on hand with which to discount current bills, immediate steps should be taken to borrow funds for that purpose. The discounts saved will more than compensate the interest cost.

The Matter of Loans

It may be necessary from time to time to arrange loans for working capital or for a new site, larger buildings, or for improvements of one kind or another. Then, how about your position in reference to the banker and the investment house? The first thing they will ask for is your balance sheet or financial statement, and next your statement of operations. It is absolutely necessary for them to have these figures. They must be satisfied that you have something on which to borrow, and they must have confidence in your ability to operate your institution efficiently. You may have a splendid opportunity for the purchase of a new site or building, or there may be an urgent demand for larger quarters in your hospital, by reason of your ability to please the public. But do you yourself know whether you have been operating efficiently without undue loss or waste; whether you have been covering your expenses or showing a consistent deficit, thereby gradually impairing your very capital?

On such an occasion have you ready that accurate financial information which you feel you should have, and which is likely to be requested, or have you just some general information as to your receipts and expenditures, and some vague knowledge of what your capital assets are?

If you lack this financial information, is it feasible to ask your banker to take the risk of advancing you money? In some few instances the banker may have an intimate acquaintance with your institution, extending over a period of years; he may be satisfied with these things, in his own mind, and be willing to vouch for the risk. But this is not of common occurrence, nor is it good business in the long run for yourself or your banker. A banking or investment house is a business institution and as such will follow business principles. It must be sure of your assets and your ability to operate your institution on a paying basis. Otherwise, if you were constantly impairing your capital, its loanable value would be constantly decreasing and you would never be in a position to reduce the principal of your loan.

Under such conditions, as you readily see, a loan would be difficult to negotiate. This seems to point to a real need for a balance sheet and statement of operation.

Data at Your Fingertips

There may be some reluctance on the part of hospitals and charitable institutions, in need of public contributions, to submit a balance sheet showing their resources, or a statement of operations, other than one showing a deficit. Whether financial statements be given public or quasi-public presentation, is a question that should be settled by superiors with the advice of the proper ecclesiastical authorities. But it appears to me that it would be a grave mistake not to have them ready and thorough for the many other reasons that demand them.

Furthermore, was it ever necessary for you to know the total of accounts due you from patients and others at a given date? That is, your collectable accounts? The amount of cash, supplies, and equipment you have on hand?

Do you know that the property of the hospital, instruments, etc., is not being given to private use? That the hospital is being reimbursed for equipment broken either intentionally or by accident? Do you know the amount of your assets which could be pledged as security for a bond issue?

This is all information that you need, and that the financial accounts will answer.

Now in reference to your operating accounts; have you ever desired to know what it has cost you in the past for various items of expense, and what these amount to each month? Or the total of these expenses up to any date? How much they have increased or decreased, and why?

Are you satisfied that the proper charge is being made for all services rendered to patrons of your institution?

You need this information if you want to get the greatest benefit from your expenditures. We said before that this is efficient management.

Have you ever wanted to know how much your income has been and from what sources it is derived? Do you know that the income from your investments is accounted for and properly collected? That all your other income is accounted for? Whether it has been increasing or decreasing, and why?

Accuracy

The only way these things can be known is by having adequate operating records, kept in an accurate and complete manner.

Accuracy is necessary in all small transactions as well as those involving large sums of money. In fact it is often found that carelessness or hurry in the entering of small items involves considerable annoyance later on when an atempt is made to balance monthly or yearly statements.

Accuracy pertains not only to the entry of the amount, but to the time of the transaction. It is important to have a complete and correct description of items, so that these items can be readily understood, not only by the person making the entry, but by those in authority at some later date.

How much time is lost, and worry involved, because of mislaid data, postponement of entry, and incomplete information? Disputes as to prices, misunderstandings as to salaries and wages, special arrangements about rooms and rentals, deductions from regular charges, to say nothing of duplication of bills and receipts not recorded, and confused.

If you weigh carefully all the benefits derived from an adequate accounting system, or accounting records, you will find that they are well worth the expenditure necessary to obtain them.

Classification of Accounts

We will deal, for a few moments, with the make-up of these records, and try to get some idea of the accounts and their classifications.

The double entry system of accounting is recommended for financial and operating accounts, since it provides the simplest means of ascertaining that all transactions regarding finances and operating are entered on the books. It also enables us to make an easy test of the accuracy of the books, since in this system for every debit a corresponding credit to some account is made.

The cash basis which deals only with the actual receipts and disbursements, is the simplest method, but the accrual basis which charges each period with its proper expenses regardless of when they are paid, is necessarily recommended, since it is the only one by which true operating costs can be determined. If these operating costs are used for the purpose of comparison, they must be accurate or their value is lost.

Financial

The financial accounts deal with assets and liabilities, reserves and net capital investment. Assets are the things which we own and liabilities the things which we owe. Reserves are the funds provided out of your earnings to cover depreciation of your property. Your net capital investment is self-explanatory in that it shows you the amount of your original investment, and your surplus or deficit due to operating your institution.

To give you an illustration of assets, I will enumerate some of those most likely to be found on the balance sheet of a hospital:

Sites and grounds account.
Buildings account.
Furniture and fixtures account.
Machinery and tools account.
Apparatus and instruments.
Ambulance and live stock.
(These are capital accounts and make up property and equipment accounts.)
Stocks and bonds account. (This covers investments.)
Cash account.
Notes receivable account.
Accounts receivable account.
Inventories of materials, etc. (These are current assets accounts.)
Prepaid insurance account.
Prepaid interest account. (These are prepaid accounts or deferred charges.)

Property accounts should be placed on the books at the actual cost, or if it is impossible to obtain this information when you are opening your books, the appraisal value at that date should be used.

Some liabilities are:

Bonds outstanding or mortgages payable.
Endowed or partly endowed bed account.
General endowment fund account.
Loans made and notes payable.
Accounts payable account.

Other financial accounts are reserves for depreciation of hospital property and equipment, capital account, surplus and deficit account.

Now I could take each one of these accounts, explain it to you, and show you its particular advantage. To summarize, however, these accounts will enable you to draft a statement of your financial condition at any period of time; they will enable you, by comparison with previous financial statements, to have a record of the changes in the financial condition of your institution.

Operating

Under the classification of operating accounts we are concerned with the accounts dealing with the income and expenses incident to the operation of the institution.

Care should be taken that items which are capital expenditures are not included in operating costs. Capital expenditures are those which cover any new and additional hospital property or equipment that does not renew or replace property or equipment already in use, and to such extent as it increases the value of assets on hand. These are chargeable to the asset account which covers them, such as building account, furniture and fixtures account, etc. Money expended for such items is not charged to operating accounts but as an increase to your capital investment.

The more important sources of income for which accounts would be provided are:

Board from patients—classified as to private, ward, etc.
Special nursing.
Use of operating room.
Anaesthetics.
X-ray service.
Pharmacy.
Ambulance fees.
Out-patient department.
Income from investments.
Income from endowments—restricted or unrestricted.
Donations.

The operating expense accounts may be grouped into the following general classifications, and detail accounts provided under each, according to the needs of the particular hospital:

(1) Administration expenses — examples, telephone and telegraph, legal expenses, corporation expenses.

(2) Professional care of patients—salaries and wages of physicians, nurses, and orderlies; medical and surgical supplies.

(3) Department expenses for each department operated; as, pathological department, nurses' home, housekeeping department, kitchen and dining room, laundry, etc.

(4) General house and property expense—heat, light, and power; repairs to buildings, care of grounds and buildings; gas, water, etc.

The more extensive the division of these accounts, the better comparison can be made from month to month, year to year, with the other institutions of the same order, and with those of other orders. Briefly stated, the advantages of these accounts are as follows:

1. They furnish a record of the operations of the institution for specific periods, preferably monthly.

2. They provide a basis for comparison of operations between different periods, showing increases or decreases.

3. They provide a basis for planning budgets for future operations.

4. They provide a basis for comparison of operating income and expenses with those of other institutions.

In short, they give the information which will make for efficient management.

Recommendations

First, I would like to recommend centralized purchasing.

Wherever centralized purchasing is in effect, and in proportion to the extent it is in effect, savings in the cost of purchases of all descriptions are made.

It is perfectly feasible to have a department in each order, located nearest the best purchasing point, or in the motherhouse, regardless of location, where contracts can be made with commercial houses for all items used in quantity by the hospitals. The lowest prices can be obtained from the best and largest houses, delivery to be made to each hospital as the goods are needed by them.

A hospital bureau could handle this end of the work for all Catholic hospitals, at a material reduction to all. There are such agencies in successful operation among certain groups of non-Catholic hospitals. Why cannot we have at least some approach to centralized purchasing where it is practical?

Secondly, I would recommend control of distribution by means of stores and the requisition system.

Control of all materials, medical and surgical supplies, equipment, in fact, everything used in quantity, should be had by means of a general storeroom, with possible substores where the size of the institution requires.

Distribution is made by one person in charge and only on receipt of requisitions signed by department heads, specifying the quantity needed for use. Great losses and waste of material are checked in this way, and absolute control is given over all purchases and inventories.

Finally, I would like to recommend that as soon as feasible, Catholic hospitals adopt a uniform accounting system, one which could be used in its fundamental features by all Sisterhoods engaged in hospital work.

Should there be question of changing the system of accounting which you have hitherto followed, allow me to suggest that you proceed through a committee appointed for that purpose, consisting of one or more Sisters in charge of such work in the motherhouse of each Order, in conjunction and cooperation with a recommended certified public accountant.

After fundamental principles have been agreed upon, installation of the system can be made to fit the particular requirements of each hospital.

This uniform accounting system would make possible the intelligent comparison of the hospitals of each Order by its motherhouse, and of the different Orders by some association or person interested in the progress of Catholic hospitals in general. Such an association, bureau, or person, would be of the greatest possible advantage in promoting the interests of our Catholic hospitals. The encouragement of a spirit of cooperation between different hospitals and different orders would make for a high degree of efficiency in all lines of their work.

The feasibility of this recommendation is no idle dream! It has been successfully worked out with gratifying results to all concerned, by large non-Catholic hospital associations. For some idea of the progress already made in hospital accounting by other institutions, I would recommend that all of you interested in such work obtain a copy of a book entitled "Hospital Accounting and Statistics," published by E. P. Dutton and Company of New York.

MERCY HOSPITAL, DAVENPORT, IOWA
The Catholic hospitals of Iowa will convene here Nov. 12 and 13.

The First Use of Ether as an Anaesthetic in America

"THE FIERCE EXTREMITY OF SUFFERING HAS BEEN STEEPED IN THE WATERS OF FORGETFULNESS."—Oliver Wendell Holmes.

SEVENTY-EIGHT years ago this month, on the 16th, in the Massachusetts General Hospital in Boston, Dr. John Collins Warren, professor of surgery in the medical department of Harvard University, performed the first surgical operation in which ether was used as an anaesthetic.

Twenty-eight years ago, on the occasion of the fiftieth anniversary of ether in surgery, the late Dr. Washington Ayer, an eye witness to that historical event and at one time president of the State Medical Society of California, recounted the interesting details of the occasion in an address before the San Francisco Medico-Chirurgical Society, from which the following extracts are taken:*

"Like many of the great discoveries in art, science, and natural philosophy, the discovery that anaesthesia could be produced by ether with safety, and that the paralysis of the sensory nerves thus affected would disappear with the return of consciousness, was the outgrowth of an accident. A man (William Thomas Green) called at Doctor Morton's office, suffering from an over-sensitive tooth with a large cavity, which the doctor filled with lint well-saturated with ether, and then covered over to prevent rapid evaporation. Waiting a short time to have it take effect, he extracted the tooth without pain, and accidentally discovered that the gums along the jaw were still insensible, which led to the discovery of ether by inhalation for the purposes it is now used.

"But the problem was not solved without much careful experimental study. Doctor Morton administered ether on a number of occasions to the lower animals and carefully noticed its effects. On another occasion he shut himself in his room, and at the risk of losing his life, inhaled the ether until consciousness had left him, and while recovering, carefully studied the feelings that came over him. This, to him, was a crucial test of an important discovery, 'how to banish pain.'

THE FIRST PUBLIC DEMONSTRATION OF SURGICAL ANAESTHESIA, BOSTON, OCTOBER 16, 1846.
(Right to left) Top Row: Dr. H. J. Bigelow, Dr. A. A. Gould, Dr. J. C. Warren, Dr. W. T. G. Morton, Dr. Samuel Parkman, Dr. G. Hayward.
Bottom Row: Dr. J. Mason Warren, Dr. S. D. Townsend.

"Shortly after the experiment upon himself, a gentleman called at his office, in great suffering—so great that he would not allow the tooth to be touched without taking something to relieve him, and asked to be 'mesmerized.' Doctor Morton told him he could do something better than that to relieve him, and saturating a handkerchief with ether, told him to inhale it, when, in a short time, he became completely etherized, and the tooth was extracted. As the man returned to consciousness he was asked if he were ready, to which he replied 'I am,' and when told the tooth 'was out,' he could not realize such was the case, until his attention was called to it on the floor, and declared he did not suffer. Then Doctor Morton realized that he had performed the first operation ever undertaken while the patient was under the influence of an anaesthetic.

*Courtesy of Doctor Ayer's daughter, Miss Mabel Adams Ayer, student nurse at St. Joseph's Hospital, San Francisco.

"In that simple act of extracting a tooth, the world beheld a new revelation to science—the dawn of a new medical philosophy. Pain thenceforth was to be forever banished from the afflicted while under the knife of the surgeon, and the patient was to become oblivious to the world while on the table.

First Ether Operation

"It was on the 30th day of September, 1846, that Doctor Morton administered ether the first time to produce complete anaesthesia, and on the 16th of October, of the same year, Dr. John Collins Warren performed the first surgical operation while the patient was under the influence of ether, and to his sanction it owed its rapid introduction in surgical practice throughout the United States and Europe.

"After becoming fully satisfied he had made an important discovery, Doctor Morton communicated with Doctor Warren and obtained permission to administer his new ether to some patient upon the first favorable opportunity. On the 14th of October he received a note from Doctor Warren requesting him to be at the hospital on the Friday following, to administer his ether, and appointed the hour.

"The day arrived; the time appointed was noted on the dial, when the patient was led into the operating room, and Doctor Warren with a board of the most eminent surgeons in the state, were gathered around the sufferer. 'All is ready—the stillness oppressive.' It had been announced that 'a test of some preparation was to be made for which the *astonishing* claim had been made, that it would render the person operated upon free from pain.' These are the words of Doctor Warren that broke the stillness.

"Those present were incredulous, and as Doctor Morton had not arrived at the time appointed, and fifteen minutes had passed, Doctor Warren said, with significant meaning, 'I presume he is otherwise engaged.' This was followed with a 'derisive laugh,' and Doctor Warren grasped his knife and was about to proceed with the operation. At that moment Doctor Morton entered a side door, when Doctor Warren turned to him and in a strong voice said, 'Well, sir, your patient is ready.' In a few moments he was ready for the surgeon's knife, when Doctor Morton said, '*Your* patient is ready, sir.'

DR. W. T. G. MORTON.

DR. J. C. WARREN.

"Here the most sublime scene ever witnessed in the operating room was presented, when the patient placed himself voluntarily upon the table which was to become the altar of future fame. Not that he did so for the purpose of advancing the science of medicine, nor for the good of his fellow men, for the act itself was purely a personal and selfish one. He was about to assist in solving a new and important problem of therapeutics, whose benefits were to be given to the whole civilized world, yet wholly unconscious of the sublimity of the occasion or the part he was taking.

"The heroic bravery of the man who voluntarily placed himself upon the table, a subject for the surgeon's knife, should be recorded and his name enrolled upon parchment which should be hung upon the walls of the surgical amphitheater in which the operation was performed. His name was Gilbert Abbott.

"The operation was for a congenital tumor on the left side of the neck, extending along the jaw to the maxillary gland and into the mouth embracing the margin of the tongue. The operation was successful; and when the patient recovered he declared he had suffered no pain. Doctor Warren then turned to those present and said, 'Gentlemen, this is no humbug.' 'The conquest of pain had been achieved.' Surgery was robbed of its terror, and the surgeon greatly assisted in his operation.

A Second Trial

"Soon after Doctor Morton learned there was to be an amputation of the leg at the Massachusetts General Hospital for an incurable disease of the knee. The patient was a feeble young woman. He applied for permission to again administer the ether but was told the managers would not consent unless he would make known his secret, as it was contrary to the code of medical ethics to use or encourage the use of a remedy whose properties were not known.

"Through the influence, however, of Dr. Henry J. Bigelow, permission was granted, and the second opera-

tion was performed under the influence of ether on the 6th of November, 1846, and was equally successful with the first. After this ether was freely used in all cases of surgery. I also witnessed this second operation, and subsequently had the opportunity of seeing the patient occasionally in the surgical ward of the hospital.

"The discovery was not that ether possessed anaesthetic properties, for that was known long before, but that one might remain insensible under its influence for a long time without harm. This Doctor Morton claimed, but Doctor Warren demonstrated what seemed to be only an assertion from Doctor Morton, that under careful administration the inhalation of ether was safer. This discovery of the safety of ether in producing complete anaesthesia may be classed as one of the great civilizing factors of the nineteenth century.

Others Claim Honor

"After the great benefits of ether had been fully established by the discovery of Doctor Morton, he found himself involved in an expensive and cruel litigation. Doctor Wells, and Dr. Charles Thomas Jackson, of Boston, an eminent chemist and learned in many departments of science, brought suit against Doctor Morton to deprive him of the honor of his discovery which nearly impoverished him.

"Doctor Morton employed such eminent counsel as Daniel Webster and Rufus Choate. The contest was long and bitter, and while congress was about to award to Doctor Morton $100,000 for his great benefaction to mankind, the influence of Doctor Jackson defeated the bill for the appropriation, but did not deprive Doctor Morton of the honor which the world so justly bestowed.

ONE OF THE EARLIEST OPERATIONS UNDER ETHER AT THE MASSACHUSETTS GENERAL HOSPITAL.

"So great importance was given to the discovery of ether in Europe, that Doctor Morton received a divided Montyon prize from the French Academy of Sciences; the Cross of the Order of Wasa, Sweden and Norway; the Cross of the Order Vladimir of Russia, and in many other countries he received distinguished expressions of honor. Yet our own country has failed to recognize the wonderful discovery of Doctor Morton with becoming respect.

"Dr. John Collins Warren, to whom the world owes so much, was born in 1778, and died in Boston, Mass., in 1856. He was an eminent surgeon and scholar, and his memory will ever live and be cherished by the medical profession, and his published works will enrich the medical libraries wherever found."

Ether 1846-1924

Paluel J. Flagg, M.D., New York City.

WHILE ether had been administered by Crawford Long in Georgia in the spring of 1842, the use of this drug as an anaesthetic by Morton in October, 1846, signalized its formal acceptance by the medical world. The sanction of the Massachusetts General Hospital supplied the seal of approval which Long's earlier work had lacked.

Looking back over the seventy-eight years which have elapsed since a small circle of thoughtful medical men gathered together to bear witness to the action of a drug which was said to be capable of destroying consciousness and the memory of the pain of a surgical operation, we may reflect for a moment upon the changes which have taken place during this relatively short period.

Three factors remain constant, affected by the many changes which have been brought to bear upon them, but intrinsically unchanged. These factors are ether, the patient, and the physician; or, the agent, the recipient, and the administrator.

The Agent

Since ether was formally introduced upon that memorable day, many other anaesthetic agents have been brought forward as pleasanter, more potent, more portable, and less likely to cause protracted post-operative effects. Few agents have been offered as more safe, and these agents and sequences so introduced have, without exception, passed the palm to their great antecedent. Chloroform quickly gave place to ether, settling down with ethyl chloride to a mortality approximately ten times greater. Nitrous oxide and oxygen, heralded as the long sought for ideal anaesthetic, has been the direct cause of so many deaths that it, too, is generally acknowledged to have a mortality greater than ether; and ethylene, the youngest agent of all, unfortunately has a specific gravity which, in view of its explosive nature, renders it too dangerous for routine use.

Refinements in the manufacture of ether for anaesthesia yield a product practically free from objectionable impurities. Barring these refinements, the ether used today is similar to that employed in 1846.

Improvements in the administration of the anaesthetic during these seventy-eight years have been rapid and have changed the reaction to this drug. Some years ago chloroform was thought to be indispensable for the aged, for cardiac complications, and for head and

neck surgery. Now all of these difficulties are satisfactorily met by ether administered in combination with oxygen or by insufflation methods.

Today ether stands as the safest general anaesthetic for use in major operations. This by no means implies that it is without danger, for ether directly and indirectly in its remote effects is only too frequently the cause of death. The administration of an anaesthetic remains as it began, the most dangerous branch of the practice of therapeutics.

The Recipient

The patient of today is well prepared to withstand the strain of the anaesthetic and the operation. A careful preparatory workup, correct diet, and preliminary medication, each plays its part. But to counterbalance these improvements, we find that the range of the operative procedure is tremendously increased. Many special branches of surgery now replace what was in 1846 a brief life-saving intervention. This greatly increased field of special operations, often occupying long periods of time, throws a burden upon the patient which must be met. Gas and oxygen, oxygen and ether, by the closed method and by various other sequences and methods of administration, are employed to meet the difficulty.

In spite of the preliminary preparation and the increased range of operability, the patient of today is not unlike his grandfather of 1846.

The agent, then, and the recipient, are quite unchanged, although each has been greatly benefited; the first by improvements in purification and in the technique of administration; the second by the increased range of relief which may be obtained by surgical intervention.

The Administrator

As we reflect upon the third factor, the administrator, we do find a change. The general practitioner or the old-fashioned internist was essentially an expert bedside clinician. He has been largely replaced by the surgical specialist and the laboratory worker. The pursuit of the scalpel and the microscope has for the moment obscured the internist and his armamentarium, therapeutics.

The eclipse of therapeutics by the pressure of special surgery has made its practice a matter of small concern to many men interested in operative work. As a consequence, this generation is witness to the amazing spectacle of many representative members of the profession sanctioning by their permission, the practice of the most dangerous branch of therapeutics by non-medical persons, nurses, and others. Non-medical persons are not only permitted, but encouraged, to employ at their discretion, drugs which are designed to produce unconsciousness, and which are known to be capable of causing death.

Today, seventy-eight years after the discovery of ether, we who hold the heritage of one of the greatest of medical discoveries, while enjoying its perfections and the means which it affords us to do our work, look upon its deadly administration as the routine occupation of the non-medical worker.

The Relation of the Hospital to Public Health*

Thomas D. Maher, M.D., Director of Child Welfare, San Francisco Health Department.

The call to public health has never been more dominant than it is today. A quickened interest on the part of the public in all matters appertaining to good health, and particularly an interest in the physical well-being of school children, is manifest in every section of the country. This widespread health campaign, which is making for human physical and mental betterment, has been characterized by Rosenau as "an awakening sanitary conscience among the people."

We have come to think of a health department only in terms of preventive medicine. A decade or more ago health departments were mainly concerned with the disposition of garbage, sewage, offal, and the observation of the milk and water supply, but the development of public health has brought a decided and beneficial evolution. Public health is purchasable by money and effort, and health departments have taken full advantage of their opportunities to enlarge the scope of their activities.

An intelligent community now looks to the board of health for the prevention and control of epidemics, the safeguarding of the public food supply, and the installation of social machinery that will insure each individual hygienic advice commensurate with the maintenance of good health. Authority for the establishment of a health department is well defined, not only by national and state public acts and statutes, but by charter provisions of municipalities that define their powers and duties. A modern health department is charged with the responsibilities of the human family from the cradle to the grave. The charter of the city and county of San Francisco, for example, defines the powers and duties of the health department in the following language:

"The board has the management and control of the City and County Hospital, almshouse, ambulance service, emergency hospitals, and all matters pertaining to the preservation, promotion and protection of the lives and health of the inhabitants of the city and county, and it may determine the nature and character of nuisances and provide for their abatement. The board must enforce all ordinances, rules and regulations of the supervisors for carrying out a good sanitary condition of the city and county for the protection of

*Read before the California, Arizona, and Nevada Conference of the C. H. A. in San Francisco, Sept. 4.

public health and for securing proper registration of births and deaths and other statistical information."

The pre-natal and post-natal work of the health department among the necessitous women of the community is developing and is obviously of paramount importance.

The Public Health Program Today

The writer is constrained to believe that the most important function of a health department today is in an efficiently organized system of health work in schools, which now includes a routine examination of all children of pre-school age, and the children of the elementary and parochial schools, the potential citizens of tomorrow, in whom preventive and remediable measures may be most hopefully applied. The world war taught many lessons; but none more forceful or humiliating than the lamentable revelation of the draft board physical examinations, that disclosed a thirty per cent inefficiency in our supposedly robust young men—all of which has given health work in schools in the United States a tremendously beneficial impetus. Robert Hunter reminds us that the world and all that is on it will soon belong to the children now in our schools, and every means is legitimate which can help to make them more worthy to possess it.

And now, and parenthetically, a word about the "New Public Health" in relation to the communicable diseases, made possible through the keen insight and logical mind of Dr. Charles V. Chapin of Providence, whose "Sources and Modes of Infection," marks the real beginning of scientific public health in America. Modern public health practice for the control of the communicable diseases consists, not in the physical surveillance of whole communities, but in the sociological study of the infected persons in them.

"The essential change is this: the old public health was concerned with environment; the new is concerned with the individual. The old sought the sources of infectious disease in the surroundings of man; the new finds them in man himself." The old public sought these sources in the air. The new public seeks these sources—and finds them—amongst those infected persons (or animals) whose excreta or other constituents or body contents enter the bodies of other persons."

In other words, we are now concerned with human beings in whom microorganisms are growing, rather than inanimate things upon which they are comparatively short lived.

"Here, then, is the solution, based on human nature, on common sense, and on the most scientific knowledge. Find through the methods of epidemiology, of the laboratory, and of the vital statistician, skilfully combined by experts, those dangerous persons who carry on them or in them, germs of infectious diseases. Let all others free, but keep these persons, not in old-fashioned quarantine, but under such control that their discharges will not pass to others; and do not measure the length of that control by fixed limits, blind and unjust as quarantine itself. Measure it wholly by the length of time the germs remain in or on the body. The moment the germs have left those persons they are no longer harmful and they should be freed."

The Hospital and Public Health

Having considered some of the multitudinous functions of a health department, let us now direct our attention to the hospital and its relation to public health, which is virtually its relation to the health department, in which, as has been shown, the responsibility for community health has been legally vested.

The definition of a hospital, prepared by the Hospital Betterment Bureau of the League for the Conservation of Public Health, and around which, as an ideal, all the work of hospital improvement has been so successfully carried forward in California, defines the complete, ideal hospital as "an institution suitably located, constructed, equipped, organized, managed, and personneled to supply scientifically, economically, efficiently, and unhindered, all or any recognized part of the complex requirements for the prevention, diagnosis, and treatment of physical, mental and medical aspects of social ills; with functioning facilities for training new workers in the many special professional, technical and economic fields essential to the discharge of its proper functions; and with adequate contacts with physicians, other hospitals, medical schools and all accredited health agencies engaged in the better health program."

This definition has been widely reproduced, commented upon, and commended for the ideal it embodies. It is a star to which hospitals may hitch their wagons for some time to come. It is a challenge to inspired service, which indicates clearly the limitless opportunities that are worth striving for constantly, but which will rarely be realized. A rather voluminous definition. More succinctly the hospital is an institution in which, through an efficiently correlated service, hands are joined with the physician to insure for his patient an expeditious restoration to health. If it is axiomatic that the strength of a nation is proportionate to the health of its citizenry, it is likewise axiomatic that the hospital in its contribution to public health plays an important role in the progress, prosperity, and contentment of the community.

Communicable Diseases

The hospital as the faithful auxiliary of the health department in the administration of community health is daily exemplified.

There are 32 diseases classified as communicable and by law made reportable to the health department, all of which come within the purview of the division of epidemiology for investigation.

The hospital should at least share responsibility

with the attending physician in the observance of this regulation.

We are glad of the abolition of the fetishism that formerly prompted the disinfection of hospital rooms, particularly with formaldehyd gas, and kindred methods.

Public health requirements in this matter are abundantly subserved in the sterilization of all contaminated objects, with mechanical cleansing, fresh air, and sunshine. Terminal disinfection is no longer considered feasible or necessary.

All nurses entering a training school should be subjected to a physical examination embracing eyes, throat, and chest. Defective vision should be corrected and offending tonsils removed. Students should have been successfully vaccinated within seven years. It would be decidedly advantageous to the hospital authorities to know through the medium of the Schick reaction, just how many nurses are immune to diphtheria. Every sore throat should be cultured, both nose and throat culture, to exclude diphtheria. All persons concerned with the handling of food should have a stool examination before assignment to this particular duty.

Hospitals maintaining a charity ward for children should take vaginal smears to detect and preclude the spread of gonococci infections within the hospital. The physician who treats a variety of ills is daily exposed to infection. The secret of his well-being lies in thorough hand cleanliness and in his adroitly escaping the droplet spray of his patients. If these simple methods were practiced by nurses, there would be fewer infectious processes among nurses, and fewer diseases propagated within the hospital.

Legal Obligations

Birth registration is required by law and is highly important because of its social, economic, and legal significance. The physician in attendance is legally responsible for the necessary data for the health department. Should he neglect this important provision of law, particularly when the birth occurred in a hospital, the hospital could be censured for contributing to his negligence.

Statistics of birth are of interest because of their relation to population growth, the excess of births over deaths being known as the "natural increase."

Registration of births shows just where the babies are and makes possible such observation and protection as the health department desires and is able to extend.

There is no authority to alter a birth record once filed except the same be made in legal form; for this purpose an affidavit for correction is used, which, when properly executed and filed with the health officer, remedies any existing defect. In most instances this inconvenience to which parents are subjected is caused through carelessness of the person responsible for the original certificate. As physicians frequently sign birth certificates in a very perfunctory manner we would emphasize the necessity of accuracy in the preparation of these documents. Moreover, the registration of a birth forms a legal record that is of the greatest importance in establishing the date of birth and the child's parentage and legitimacy; it may be required to determine the age of the child for attendance at school; to show whether individuals have attained the age when they legally marry; and it is often a valuable and necessary document used in connection with the right of inheritance to property, or to furnish acceptable evidence of genealogy.

Disorders of Infants

Pemphigus neonatorum—or impetigo bullosum—a disorder affecting new-born infants, highly contagious in character, and often occurring in epidemic form, has recently visited our maternity nurseries.

In the milder forms of this disease the general condition of the infant is only slightly affected, but in the graver forms, constitutional symptoms with anorexia, vomiting, and even death, may ensue. It has been shown that in fatal cases the umbilical stump has been infected.

The treatment of these little patients should not be left to the ordinary physician. The wise counsel of a dermatologist should be sought; one who will intelligently trace the avenues of infection, criticize, if possible, the methods of technique, and outline a vigorous plan of campaign against this disconcerting malady.

Hospitals in which pemphigus neonatorum occurs suffer great subsequent financial loss plus a vituperation from parents, in which the family physician is frequently an innocent participant. Its development in an infant can never be satisfactorily explained to those to whom such explanation is due.

Although all modern hospitals are now screened, the ubiquitous fly is still a menace in the propagation of disease within the hospital. A marked fly has been observed to peregrinate to several parts of a hospital, including the culinary department, within three hours. The slogan, "swat the fly," should, therefore, be repeatedly emphasized among the attaches of a hospital.

There are many other significant matters in the relation of the hospital to public health that could be adequately covered in a paper of greater length. For the desultory character of these observations your indulgence is asked. Very little has been written on the subject-matter of this paper. The writer has culled from various authorities to whom marks of indebtedness are gratefully extended.

The hospital, therefore, is intimately concerned with the development of public health. Standing out prominently as a sentinel in the field of preventive medicine, the hospital is an institution wherein the present accepted canons of public health should not only be observed in their entirety, but vigorously and advantageously inculcated.

Hospital Lighting

Charles D. Helms, Lighting Service Department, General Electric Co., Harrison, N. J.

PROBABLY no other buildings as a class have more varied and more exacting lighting requirements than hospitals, and yet hospitals are rather behind other classes of buildings in good lighting as measured by present standards. Because of the nature of the work carried on in a hospital the opposite should be true. Proper lighting is more important here than in almost any other public institution. Good light fits more into the surroundings, improves the appearance of the rooms and corridors, helps both patients and doctors, and makes possible more efficient and more exacting work on the part of the doctors and nurses. On the other hand, poor light gives a bad impression, causes discomfort and annoyance to patients and workers alike, and in general detracts from the appearance and general efficiency of the whole institution.

It now becomes desirable to differentiate between good lighting and poor lighting. There is of course no fixed rule to apply as several factors enter into the question. Good lighting is characterized by absence of objectionable glare and sharp shadows, harmony with surroundings, adequate intensity, and even distribution. Poor lighting is typified by glare and sharp shadows, low intensity, and uneven, spotty illumination, and is a cause of annoyance to occupants of the room. Good light does not necessarily mean high intensity alone, nor does poor light mean low intensity; bright light can be soft and pleasing and dim light glaring and annoying.

Some of the things to remember in trying to secure good lighting are: the light source itself, i. e., the lamp filament, should be concealed from view; the spacing of the units should be such that even distribution of light results; and the units should be hung high enough (one-third to one-quarter of the ceiling height from the ceiling) so that the brightness will be as far from the line of vision as practicable.

Definition of Terms

Without going too much into detail it might be well at this point to define certain terms used, to avoid confusion. First, the unit by which the intensity of illumination is measured is termed the foot-candle, or the intensity produced on one square foot of surface by a standard candle placed one foot from the surface. Daylight (not sunlight) in a room may vary from ten to one hundred foot candles, while twenty foot-candles is considered high for most uses of artificial illumination. Two to ten is the more usual range. Recommended intensities will be referred to frequently in this article. The only way to compare these with existing conditions in hospitals is actually to measure the illumination produced. The portable foot-candle meter is accurate enough for all practical purposes, but for more exact results one of the more accurate illuminometers must be used.

The watt is the unit of electric power, and it is by this unit that lamps are rated. They consume energy in proportion to their wattage rating.

General illumination, as differentiated from local illumination, is divided into three classes: direct, semi-indirect, and indirect. Direct lighting is the most common. It sends most of the light downward and to the sides from the light source itself. The unit may consist of a glass reflector of the familiar type, or it may be an enclosing globe which entirely surrounds the lamp. The enclosing globe type is illustrated in Fig. 3. The glass should be of sufficient density to prevent the filament from showing, and it must be large enough to reduce the apparent brightness of the total area below a point which would be annoying to the eye. This must especially be borne in mind in hospital wards if direct lighting is used, as patients are lying for hours at a time and their gaze is directed most of the time toward the upper part of the room. Consequently the brightness of all light sources in the room must be kept low. However, it is best not to use direct lighting for ward illumination.

Softer Light

Semi-indirect lighting units throw most of the light up to the ceiling, from which it is reflected and diffused to the lower part of the room. The ceiling should be light in color to reflect the maximum amount of light. A small portion of the light is transmitted downward. There are several types of semi-indirect luminaries. Most familiar is the opalescent glass diffusing bowl, in which the lamp is supported. Most of the light is reflected to the ceiling and a little passes through the glass directly. Another type of unit has a porcelain enameled steel reflecting surface, and a glass plate in the bottom. Still another, illustrated in Fig. 5, is made of prismatic glass, which sends most of the light upward. This particular one is enclosed and is consequently easier to keep clean. The special feature of this unit for ward lighting is readily appreciated. The small extra lamps on a separate circuit for night lighting are a valuable feature.

Indirect lighting units are opaque and throw all of the light upward. The reflecting surfaces are usually either mirrored glass or porcelain enameled metal. This method gives the softest and most pleasing effect, as the light first passes to the ceiling and is diffused from there. It is particularly well adapted to hospitals, which often require the quality and softness of light given by the indirect method. Illustrations of totally indirect installations in hospitals are shown in Figs. 1 and 4. It must be remembered that in order to obtain the same intensity with indirect as with direct illumination, more wattage must be used, as the indirect is less efficient because the ceiling, which acts as a reflector,

FIG. 1. A CORRIDOR ILLUMINATED BY THE TOTALLY INDIRECT SYSTEM.

Fixtures are spaced about 20 feet apart, and approximately one-half watt per square foot floor area is provided. These reflectors have a glass cover over the top, which makes cleaning very easy.

absorbs some of the light. However, the value of the quality of light obtained often overbalances the increased cost of operation.

It might be well to mention at this time that the standards referred to represent what is considered adequate. Unfortunately, few hospitals will be found in which the illumination measures up to these standards. The illustrations shown are from modern hospitals only recently built, and indicate the trend of practice of hospital lighting. They are not, unluckily, typical as yet.

Lobby, Reception Rooms and Corridors

First impressions are lasting, and since the lobby and reception room are the first to be entered by visitors they should be made as attractive as possible. With well-diffused direct or indirect systems, an intensity of about two foot-candles is desirable for the lobby. The reception room may well have three to four foot-candles, preferably semi-indirect or indirect. Several table or floor lamps near chairs for reading purposes improve the appearance and general atmosphere of these rooms. In small hospitals where the lobby and reception room are combined, something less elaborate will do.

Corridors of hospitals are usually finished in white walls and ceilings, with tiled floors. These are good reflecting surfaces and adapt themselves to indirect units, as illustrated in Fig. 1. This is the last word in corridor lighting. No light source is visible, and the illumination is very even. Direct-lighting opal glass bowl reflectors with bowl-enameled lamps give a pleasing effect and are not glaring. This is a more modest and less expensive installation than the indirect system and would be satisfactory in many cases. An intensity of one foot-candle should be sufficient for corridors and passageways. A corridor eight feet wide would be well illuminated by 50 watt lamps in direct-lighting bowls or globes spaced twelve feet apart.

Wards

The ward is essentially the sick room accommodating more than one patient. In the smaller private hospitals wards may be rather small and provide for only a few patients, while in large public institutions more than forty may be placed in a single room.

Wards, therefore, vary greatly in size and shape, as well as in their special requirements, but they are generally finished with light colored walls and ceilings. Typical arrangements of outlets for both general and local (bedside) illumination, as well as outlets in the baseboard, are shown for both the square and rectangular type of ward in Fig. 2. Due to the fact that the patients' eyes are directed for hours at a time toward the ceiling, the central units must be of low brilliancy if they are of the direct or semi-indirect types. Great care must be taken in avoiding a too brilliant light source.

There are several distinct lighting requirements in a ward. General illumination must be provided for routine work of nurses and doctors. Illustrations of such installations are shown in Figs. 3 and 4. In addition there should be a local light at each bed to enable the patient to read comfortably and to allow the nurse to care for a single patient at night without lighting the whole ward.

Special lights are needed for the nurse's desk, medicine cabinet, and instrument trays. The corner of the ward in Fig. 4 illustrates these features. Night lighting is another necessary feature in ward illumination. A low intensity of about one-tenth foot-candle should

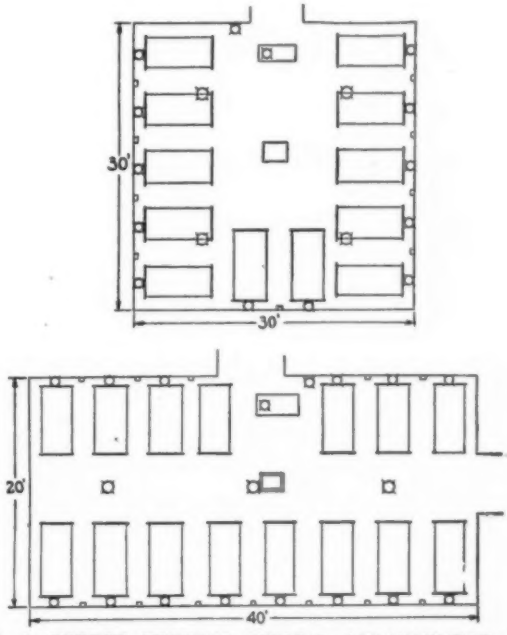


FIG. 2. SKETCH SHOWING TYPICAL ARRANGEMENT OF OUTLETS IN WARDS OF THE SQUARE AND RECTANGULAR TYPE.

Ceiling outlets for general illumination, with wall brackets and baseboard outlets, are indicated, as well as a light over the nurse's desk.

prevail. The semi-indirect unit illustrated in Fig. 5 has special application here, as it was designed with this purpose in view. It has a pleasing contour, a smooth and easily cleaned surface, and the double feature described.

In general, all three systems, the direct, semi-indirect, and indirect, have application in the ward, with preference for the last two in installations of the highest standard. Two or three foot-candles are necessary for the work performed with the general illumination turned on. About one-half watt per square foot of floor area should produce this intensity with the direct system. With the indirect system, or if dark walls are present, additional wattage is necessary.

FIG. 3. DAY-TIME VIEW OF A CHILDREN'S WARD IN A MODERN HOSPITAL.

Direct lighting from a good type of enclosing, diffusing globe with a Mazda C lamp, is here illustrated. Note the baseboard outlets at frequent intervals.

Baseboard outlets should be provided at frequent intervals along the line of beds. It is undesirable and inconvenient to remove the lamp from a wall bracket every time current is desired for use of a portable lamp, heating appliance, or instrument, so that the importance of installing a number of outlets for this purpose cannot be over-emphasized.

Private Rooms

The private hospital room is essentially a bedroom especially fitted for the care of the sick. It is often luxuriously furnished and the lighting in such cases should be up to the standards of decoration and utility observed in finishing the room. Either of the three types of luminaries may be used for the central ceiling unit, which should be controlled from a wall switch near the door. Perhaps a decorative semi-indirect or indirect type would fit more into the surroundings of a fine room. The intensity need not be above two foot-candles. There should be a wall bracket or table lamp near the head of the bed, and at least two baseboard outlets should be provided.

Operating Rooms

We now come into the realm of the more specialized requirements demanded by hospitals. The operating room necessitates a special equipment in order to light it to the high intensity and in the special way essential to successful operations under conditions demanding the use of artificial light.

There are two general types of operating rooms which require slightly different treatment in their lighting. First, in the small operating room containing merely the operating table and the necessary tables for apparatus and instruments; this type, generally found in private hospitals, sometimes uses daylight from a north window or skylight, but often it is necessary to use artificial light. The second type of operating room is usually found in a public institution operating a clinic, and the operating room is the pit of an amphitheater with seats for students witnessing the operations.

In the first type of room high intensity is needed over the table, with local lighting for accessory and instrument tables and for

FIG. 4. A SEMI-PRIVATE WARD LIGHTED BY A SINGLE PORCELAIN ENAMELED TOTALLY INDIRECT UNIT.

Note the local light at the nurse's table and the wall bracket. This should not be on the same circuit as the ceiling light. In this way it serves as an emergency light in case of accident to the system.

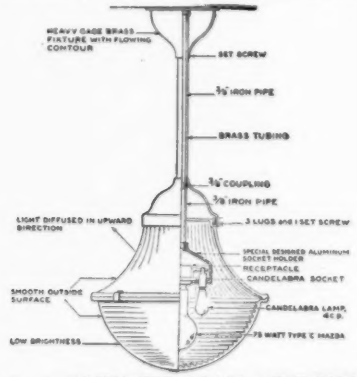


FIG. 5. A PRISMATIC GLASS SEMI-INDIRECT UNIT OF SPECIAL DESIGN WITH TWO SETS OF LAMPS FOR GENERAL AND NIGHT LIGHTING IN THE WARD.

This prismatic construction sends most of the light to the ceiling and gives the unit a low brightness when viewed from below. It has a pleasing contour and fits into the surroundings.

FIG. 6. NIGHT VIEW OF AN OPERATING ROOM ILLUMINATED WITH REPRODUCED DAYLIGHT.

A high intensity of excellently-diffused light approaching daylight in color quality and without annoying shadows, is the result of such an installation.

use when the main lights are off. The thing to be remembered in planning lights over the operating table is that there must be adequate intensity and the light must come from several directions. A large light source, provided by a large number of reflectors and lamps, is the solution. One method is to use a number of prismatic glass angle reflectors set around the perimeter of a rectangle about four by eight feet, and centered over the operating table about ten feet from the floor. At least a dozen reflectors are necessary. These can be fitted with 75, 100, or 150-watt bowl enameled Mazda C daylight lamps. The prismatic glass reflectors transmit some light, so that the general illumination throughout the room would be high enough without extra equipment. The color quality is an approach toward daylight and is better than the clear lamps give. A dozen 75-watt lamps would give about 40 foot-candles on the horizontal plane of the table. The large light source would practically eliminate shadows.

Many operating rooms use a number of lamps, say six or eight, in opal glass bowls suspended over the table. These lamps should be bowl enameled to help diffuse the light and remove objectionable glare.

Auditorium Type

The auditorium type of operating room differs only in that the seat space should be illuminated to three or more foot-candles so students may see to read and take notes. This illumination can be provided by wall brackets at the back row of seats and by ceiling lights of conventional type. The table is usually illuminated by the same method as just described for the smaller rooms, the unit being suspended about ten feet from the floor on long chains, as the ceilings of these auditoriums are quite high.

There are several other methods of providing good illumination on the operating table. In Fig. 7 is illustrated a multi-lamp unit all under one hood. It is sufficiently large, however, to provide well-diffused light on the table, and the diffusing glass plate removes glare.

All the methods mentioned so far use incandescent lamps, and consequently the color, even of the gas-filled Mazda C type, is not the quality of daylight, even when daylight lamps are used. As a result the colors are not as easily distinguished as with daylight, since there is a predominance of yellow in the light given off by the filament.

Daylight Effect

By the most recently developed system for operating room lighting, an approach toward daylight quality and quantity of light has been made that oftentimes serves its purpose better than daylight, for the reason that it is constant and dependable in all weathers and when properly installed has the advantage of giving better distribution and diffusion of the light than daylight from a north skylight. The feature of the unit is the screen which has been developed. This daylight screen, the result of much investigation and experimentation to determine its proper color value, is blue in color and passes such rays as will give a close approximation to true daylight. This means that some of the longer rays, which predominate in incandescent filaments, are cut out. The result is as before stated, a modified light producing the effect of average daylight.

FIG. 7. A DIFFUSING TYPE OF OPERATING TABLE FIXTURE EQUIPPED WITH SIX 100-WATT MAZDA C LAMPS IN MIRRORED GLASS REFLECTORS.

The bottom is covered with a diffusing glass plate. The upper part of the unit is ventilated.

The unit itself consists of a 1000-watt concentrated filament round bulb Mazda C lamp in an adjustable reflector. The light passes through the daylight screen and is projected down on the working plane. A typical installation is shown in Fig. 6. There is approximately one unit to each foot of ceiling height. The manner of placing the units insures good, even light from all directions. The intensity is more than 50 foot-candles.

While this wattage may seem high, if it is remembered that the average cost of operation would be less than one dollar an hour, which is in reality only a small per cent of the cost in the upkeep of the room, it is much less than many of the items of expense connected with the average operation. Certainly the results obtained justify the amount paid out. In fact, one hospital has recently considered it worth while to install forty of these units in the roof, forty feet from the floor. The pit will be lighted to an intensity of 65 foot-candles of modified light.

This illumination permits of accurate color discrimination, which is very desirable in surgical work. The units, since they are recessed in the ceiling, remove the hazard of dust collection on reflectors and do not radiate heat close to the head of the surgeon working at the table.

There are instances where totally indirect light has been used over an operating table. This gives a good quality of light, evenly distributed, but it must be remembered that the exacting work carried on requires high intensity, and sufficient wattage must be employed to obtain this high value.

Special Requirements

Laboratories are found in some hospitals and not in others. In institutions where any extensive laboratory work is carried on, the requirements are much like those in any chemical laboratory. A reasonably high intensity of general illumination (about eight to twelve foot-candles) is desirable, with additional local lights at the benches around the walls where the fine work takes place. If destructive fumes are likely to fill the room, glass enclosing globes should be used and the metal parts must be treated to prevent attack by acid fumes.

Microphotographic slides which are viewed to best advantage by transmitted light are now used in a box utilizing a concentrated filament Mazda C lamp. This has proved more satisfactory than the arc, once extensively used for this purpose, as the light is steady and consequently remains in focus in a lens-system.

X-ray rooms present no difficulties in the way of general lighting. An installation of units of the direct, enclosing globe type, which give about three to five foot-candles, is excellent. The switch should be within reach of the operator in the case of machines using fluoroscopic screens, so the room may be darkened conveniently.

Good light well transmitted is necessary for the careful examination of x-ray negatives. A device consisting of a box in which are a number of 150-watt daylight lamps throwing light on a white background, is effective. The light is reflected from the background to a ground glass plate on which the x-ray negatives are placed for examination. Excellent diffusion and good color are thus obtained.

Miniature Lamps

During recent years much progress has been made along the line of special miniature lamps for medical and dental work. There has long been a need for such lamps among dentists and among physicians performing operations on the nose and throat. There are now on the market many of these tiny lamps, the smallest of which are only slightly more than one-sixteenth of an inch in diameter and one-fourth of an inch long. Other lamps are about three-sixteenths of an inch in diameter. Some are fitted with a lens end. All these lamps are made to be fitted in various special instruments. An example of one of the applications of these lamps is its use in the nasopharyngoscope. This instrument is equipped with a small lamp, lenses and prisms, forming practically a periscope, so that by turning the instrument an illuminated view may be had in all directions. It is extremely useful in examining nasal passages heretofore very difficult to reach.

Fig. 8 shows an assortment of these lamps. The smallest, known as the grain-of-wheat lamp, and shown in actual size on the left of Fig. 8, is a marvel of ingenuity and painstaking care in manufacture. A list of the different types of surgical lamps recently made indicates that there are about eighty. Standardization, especially of bases, should reduce this number to eight or ten. This would decrease the cost, improve the quality, and make replacements easier.

These lamps are operated from small flashlight dry batteries, or from the lighting circuit through either a fixed or variable resistance, or a transformer. It is common practice to have a variable resistance in series with the lamp, whatever the source of supply, so that the intensity of the light may be changed by the operator, but it must be remembered that burning the lamp over its rated voltage materially shortens its life. A better way is to keep it at a normal voltage at all times.

Emergency Lights

Finally, a word about wiring, circuits, and the like. Some sort of emergency supply should be provided for.

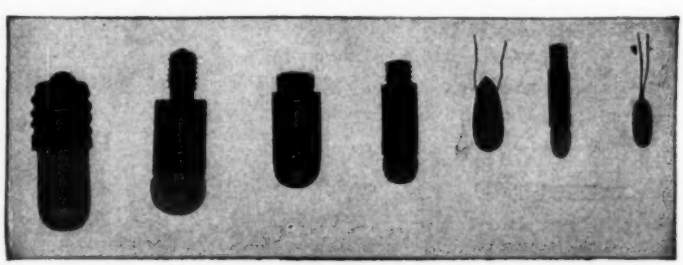


FIG. 8. A GROUP OF MINIATURE MAZDA LAMPS DESIGNED FOR MEDICAL APPARATUS.

In large cities two feeds from different mains are sometimes available. Some hospitals have their own power plants. In such cases an emergency supply from the central station should be available, ready to be cut in at a moment's notice. In some instances it might be well to have an emergency storage battery circuit with low voltage lamps in corridors and wards. These should go on automatically when the power fails. In any event, the circuits in any room or corridor should be so distributed that the blowing of any branch fuse does not put one entire room or section of a floor in darkness. This can readily be done by having at least two circuits in each room. The operating room especially needs an adequate emergency system. Storage batteries feeding lamps large enough to light the operating room are the best system to use, especially if such batteries operate the signal system, as this insures the readiness at all times of the emergency circuit.

The reader unfamiliar with the common practice in hospital lighting would be shocked by a comparison of the lighting system in the average hospital with the complete and skilful installations illustrated and described in this article.

As stated in the beginning, hospitals are far behind where they should be in the matter of good lighting. It is the purpose of this article to interest the proper persons in the general improvement of hospital lighting.

A Study in Ventilation

What Are Your Prevailing Winds

E. W. Riesbeck, Consulting and Service Engineer, Chicago.

MANY theories have been advanced on this important problem from all sides, and many different ideas and opinions have been tried out in hospitals and institutions with more or less gratifying results. In hospital practice and in medical science we accept theories and opinions only when facts are lacking. Why not bring out the facts in ventilating problems as far as they are known to the professional men, and place the hospital superiors in a much better position to pass judgment when problems of this nature require their attention?

Hospitals are still waiting for a ventilating system that will really ventilate satisfactorily in all cases and under all conditions. Let us look the facts squarely in the face and be frank about it, because this important problem has received in the past very little attention, at least not the attention it deserves.

The matter in most cases has been left to the local plumber, heating contractor, electrician, or some one acting as agent for the fan manufacturers whom they represent. These men, while they may have a fair knowledge of the equipment as such and are perhaps familiar with the installation details, in a great many instances are not acquainted with the underlying principles of ventilating so necessary for the successful operation of the system. This generally results in failure or in an unsatisfactory installation, both of which are costly to the hospital. Our purpose in going into this subject is mainly to acquaint hospital authorities with the underlying principles on which all ventilation must be based, so that they can watch future installations and in many cases make ventilation systems already installed, operate satisfactorily.

Fresh Air in the Kitchen

Let us discuss the most difficult problem, namely, the ventilation of a hospital kitchen, with which most of our readers are familiar. In a hospital the cooking odors spread over the entire kitchen, the adjoining room, and even to the floor above, causing annoyance to the patients and visitors. In 90 per cent of all cases the writer has investigated where ventilating fans were installed and failed to ventilate properly, the cause was traced to faulty installation. Of these 90 per cent failures, 40 per cent showed the installation of the fan in the wrong place. No consideration had been given to the fact that the prevailing winds in the locality play an important part in the proper ventilation of kitchen, laundries, operating rooms, etc. The remaining 50 per cent failures were due to the fact that the fan installed was far too small to ventilate properly the particular rooms in question. In some cases the fan did not even move one-fourth of the air necessary for proper ventilation. There is no reason why these conditions should exist if the problem is studied and the underlying principles of ventilation are understood and applied.

The most important thing in proper ventilation is the calculation of the cubical contents of the room to be ventilated, determination of the necessary air changes per minute required for each case, and the proper location of the fan to insure results. This process is simple and easily understood.

Simple Principles

Let us, for instance, assume that a kitchen measuring 50 feet in length, 30 feet in width, and 14 feet in height, is to be ventilated. Multiplying these figures together, namely, 50 times 30 times 14, we have 21,000. This figure represents the cubic feet of air in the kitchen. Good practice has taught us that to ventilate kitchens properly we require a complete air change once every three minutes. Dividing 21,000 by three we get 7,000, which means that we must move 7,000 cubic feet of air every minute. A fan whose motor is supplied with alternating current (now generally used throughout the country) running at a speed of from 500 to 650 revolutions a minute (which is consistent with good practice, varying of course with the size of the fan), capable of moving 7,000 cubic feet of air a minute, has a propeller diameter of 30 inches. A check-up on

various installations showed the fan for the given size of the kitchen much smaller in diameter; consequently there was poor and inadequate ventilation.

In kitchens where steam-operated equipment is used a complete air change once every two minutes is necessary Using the same figures as before, namely, 21,000, and dividing this by two, we have 10,500, which means that 10,500 cubic feet of air must be moved every minute. A fan moving this amount of air driven by alternating current motor, under the conditions stated, has a propeller diameter of 38 inches. Practice has demonstrated that a 30-inch fan should run 600 revolutions a minute, and a 38-inch fan 500 revolutions a minute to produce proper results. Vibrations at the foregoing speeds are reduced to a minimum and the motor will remain cool. It is just as important that the fan be placed in the right location.

Consider the Winds

In order to ventilate properly a fan should be installed in the kitchen, laundry, operating room, or any other room, on the side of the building which is directly opposite the side against which the prevailing winds of the locality exert their pressure. Below is a table showing the direction of these prevailing winds in a few different localities. A letter addressed to the nearest weather bureau will bring this information to one for any locality, free of charge.

Milwaukee	West
Green Bay	S. W.
Spokane	S. W.
Seattle	S. E.
Norfolk	North
San Antonio	North
El Paso	N. W.
Pittsburgh	N. W.
Philadelphia	N. W.
Columbus	S. W.
New York	N. W.
Buffalo	West
Minneapolis	N. W.

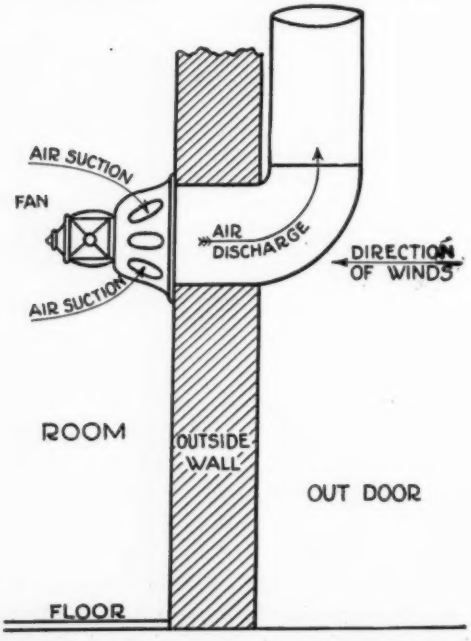


FIG. 2. SHOWING PROPER METHOD TO PREVENT PREVAILING WINDS FROM BLOWING AGAINST FAN DISCHARGE.

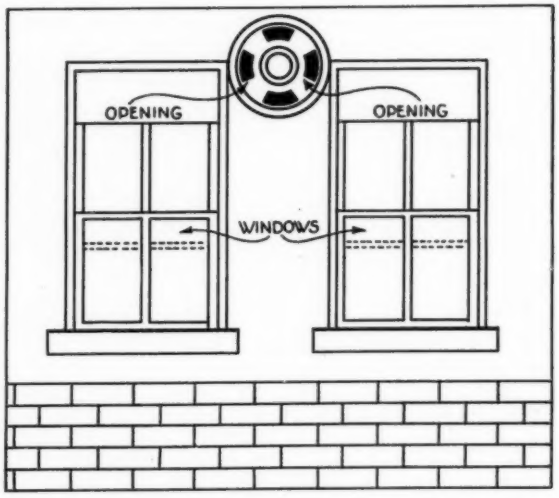


FIG. 1. SHOWING AIR DRAWN THROUGH OPEN WINDOWS.

Duluth	S. W.
Boston	West
New Orleans	North
Chicago	S. W.
Sioux City	N. E.
Indianapolis	South
Atlanta, Ga.	N. W.
Washington, D. C.	N. W.
Denver	South
San Francisco	North

The importance of considering the prevailing winds of any locality can be appreciated from the pressure table below which gives the wind velocity in miles per hour, also in feet per minute, and the force of the wind in pounds per square foot against the fan discharge opening:

Force of Wind

	Miles an Hour	Feet a Minute	Force in Pounds a Square Foot
Perceptible	2 miles	176 feet	.020 lb.
Light breeze	4 miles	352 feet	.079 lb.
Pleasant breeze	10 miles	880 feet	.492 lb.
Brisk wind	20 miles	1760 feet	1.960 lb.
High wind	30 miles	2640 feet	4.400 lb.
Storm	50 miles	4400 feet	12.300 lb.

It is evident, when the foregoing figures are taken into consideration, that a fan installed in the wall or a window, the outlet facing the prevailing winds of the locality, can not discharge its full capacity of air. Let us take, for instance, a pleasant breeze of 10 miles an hour with a velocity of 880 feet a minute blowing against the fan outlet, exerting a pressure of almost one-half pound per square foot against the air discharged. It is apparent that the fan is unable to discharge its full volume of air and the result is unsatisfactory ventilation.

Opening in Opposite Wall

Another point seldom taken into consideration is the fact that when a fan is installed in a wall or window, for instance in the kitchen referred to, moving 7,000 cubic feet of air a minute, we must provide an opening in the opposite wall of the room to supply 7,000 cubic feet of air a minute. If this is not taken care of proper ventilation can not be secured. The fan can not draw sufficient air through the kitchen to accomplish the purpose for which it was installed.

This air need not be taken from the outside. It can be secured from adjoining rooms or by opening a door or window as long as we supply the necessary

amount, or in other words, the same amount as the fan discharges. In most cases the fan can be shut off as soon as the dishes are washed, thus saving the electric current charge.

Employees of hospitals almost everywhere are under the delusion that when a fan is running and the windows are opened on the side of the room on which the fan is located, there will be better ventilation. This is absolutely wrong. If the windows in the same wall on which the fan is located are opened, the fan will draw the air into these windows in place of drawing it through the room (See Fig. 1). The result of course will be improper ventilation.

Where trouble exists it can not be corrected by opening the windows or doors; this procedure will render the fan useless for the purpose it was designed for. Such troubles must be corrected by the application of the principles outlined in this article, and proper measures taken to correct them. If two or more windows are located in the wall opposite the fan one should be opened on top and the other on the bottom in order to secure better circulation.

If these simple facts are observed and the remedies described in this article applied, better ventilation will result. Should it become necessary for any reason to locate the fan in the wall facing the prevailing winds of the locality, an elbow made of galvanized iron with a pipe running upward about 12 or 16 feet must be placed on the discharge opening of the fan to prevent the wind from blowing against the fan discharge (See Fig. 2).

In New Hospitals

When new hospitals are built, the ventilating system should be of the suction type; the fans can be located in the attic or in the elevator machine room. Ducts leading from the rooms to be ventilated can be run in the walls and the fan discharge can be carried through the side of the building or the roof.

One very important point that is only too often overlooked is the size of the hoods over the kitchen range, steam table, sterilizer steam table, etc. These hoods must be at least two feet larger each way than the floor space occupied by the apparatus they are called upon to serve, in order to prevent the escape of steam, smoke or odors into the room. These hoods should have the sides made as steep as possible to allow the smoke or odors to be discharged more rapidly into the duct leading to the fan. Flat hoods have a tendency to hold the smoke or steam and when the entire hood is filled, these escape into the room.

To secure proper ventilation of any room with a suction system it is not sufficient to connect the suction fan to the hoods. Register plates of proper size must be placed in the ceiling of the room to remove any odor, steam, or smoke that has gathered. These registers must be spaced evenly and connected to the fan by ducts. Several ventilating systems so installed have proven a success; no odors are present in the room itself.

Indirect System Unsuccessful

Ventilation of wards and rooms by the indirect system has not proven a success; neither has the system of providing air to the room through screened openings behind the radiators.

We still look forward to a better method of natural ventilation. Excellent results have been obtained by the suction system of ventilation described, in wards and private rooms where proper precautions were taken to design the ducts large enough, and the fan of proper size and speed to handle the correct amount of air.

No draft is noticeable where the velocity of the air has been regulated by dampers in the ducts to meet the individual requirements. It is a simple matter to secure perfect ventilation in all cases if the facts as outlined here are understood and applied.

Many hospital superiors will be enabled to correct troubles now existing, and to guard against mistakes in the future, if they will follow these simple, fundamental principles.

The Hospital as a Place of Confinement from the Patient's Standpoint

J. R. Manley, M.D., Chief of the Obstetrical Department, St. Mary's Hospital, Duluth, Minn.

UNTIL the last few years the vast majority of babies were born at home. Only in the large medical centers with large charity and teaching hospitals were there any number of hospital obstetrical cases, and those patients were the very poor whose home surroundings were totally unsuitable. The large self-respecting and moderately prosperous class all had their babies at home. In recent years with the improvement of hospital care of obstetrical cases and the recognition of obstetrics as a separate and important department in the hospital, more and more of this large middle class are coming to the hospital to have their babies. It is incumbent upon the hospital to encourage this tendency, which originally was fostered by the obstetrician, and to make the hospital experience a pleasant and profitable one for the family.

Let us contrast hospital and home care from the patient's standpoint alone. At home she is among her family and friends in familiar surroundings. When her pains begin she is the center of attraction; her husband is usually with her and little household affairs take part of her attention in the long first stage. A doctor is called early and often comes two or three times and stays two or three hours. After the baby is born it is usually in the room with the mother where she can see it at any moment. The next day the neighbors and friends arrive to admire her baby and offer congratulations. In short, instead of being one of a series of cases she is, to use the street expression, "the whole cheese."

At the hospital she is in the midst of unfamiliar surroundings and among strangers. Her relatives are not often able to stay with her; very probably they are

at home caring for the other children. She hears the cries and groans of women in labor; she may even overhear snatches of conversation such as "476 died last night," or "481 baby died." She is often entirely alone during her long first stage with only an occasional visit from a busy nurse or intern who watches her progress. There is not much real heartfelt sympathy extended. The doctor whom she had depended upon to help her through this trying ordeal frequently is not called until ether is given, and she is not conscious of his presence. She does not see her baby for 24 hours, until the first nursing, and then she only sees it at nursing time. These remarks apply more particularly to those cases without a special nurse; a good special nurse can help obviate a good many of the foregoing criticisms.

Obstetrics as a Separate Department

What can we do to counteract these factors, which from the mother's standpoint seem to favor the home as the place for confinement? We can do several things. For reasons that will be separately and distinctly advanced the obstetrical department should be entirely separate from the rest of the hospital and if possible upon a separate floor, with a distinct coterie of supervisors, interns, and nurses.

1. There is great danger of carrying infection if obstetrical cases are cared for by those nurses and interns who are concerned with general surgery or any type of patients with possible infection.

2. Being properly segregated they are spared the depressing incidents arising from the introduction of accident cases, emergency operations, or other harrowing experiences incidental to general hospital life.

3. The obstetrical department handles an entirely different sort of patient. The pregnant mother is a well person about to become sick; the other patients are sick people hoping to become well.

A well person who knows she will be sick will be more apprehensive and critical than the sick person who comes hoping for a cure. Therefore, she should be protected against sounds and sights which lead to her apprehension. It should not be necessary to point out the importance of eliminating the careless discussion of "bad cases," the groans and outcries of other patients in labor, etc. It is equally obvious that the supervisors, nurses, and interns should freely dispense to the expectant mother in labor, large doses of sympathy and good cheer. Frequent visits by the interns, head nurses, or best of all by the doctor himself, aid these patients to bear their pains well and keep up their morale; they postpone the need for interference. A patient will often forgive a badly lacerated perineum, a slight infection, or even the loss of her baby under certain circumstances, but she never forgives an evidenced lack of interest, roughness, or neglect of her baby.

I am perfectly aware that doctors and nurses through long years of contact with pain and suffering become hardened to a certain degree, but no matter how calloused they may be they cannot afford to convey that impression to the patient. I am also aware that many patients are unreasonable to a degree, yet they must be treated with the same consideration.

After the baby is born the situation changes. The mother's interest now lies in the baby. She should be allowed to see it at the first opportunity and not be obliged to wait until the regular nursing time. She is eager to observe for herself what it looks like, whether it is all right, and what it weighs. Never bring a baby to its mother with wet diapers, or wet from vomitus. The mother will jump to the natural conclusion that the baby is always in that condition. Patients complain bitterly if the baby is chafed when it leaves the hospital. They are anxious to know whether it is gaining properly and whether it keeps its food.

I think there is room for discussion as to whether it is best for mother and baby to keep all the babies in a nursery. If it were possible advisedly to keep the baby in the mother's room during the waking hours one of the great objections which mothers advance against hospital care would be overcome.

Summary

1. A sound-proof delivery room is most essential both for those mothers awaiting confinement and for the peace of mind of those who have already passed through labor.

2. The most kindly and sympathetic attention during the first stage of labor will yield great return in the patient's contentment and the hospital's popularity.

3. The attending physician must be called in plenty of time.

4. Most particular care should be given to the baby in regard to wet diapers and chafing, and to the mother's wish to see her baby as soon and as often as possible.

ASSOCIATION MOVES CENTRAL OFFICES

In order that it may work more effectively with the new Hospital College recently opened at Marquette University, Milwaukee; for financial advantages, and with a view to making more accessible to students of the Hospital College, the cooperation of the Association, the central offices of the international body have been transferred from 610 Sycamore Street to 124 Thirteenth Street.

The new headquarters consist of a three-story residential building in the same block with Gesu Church, and with the university buildings in which some of the hospital courses will be given.

The main floor has been equipped for administrative purposes and is occupied by the business offices of the Association and the editorial offices of HOSPITAL PROGRESS.

On the second floor are the offices of the President, Rev. C. B. Moulinier, S. J., and his assistants.

The offices, and an almost adjacent dormitory for the Sister students, are centrally located with reference to the rest of the city, and are within easy walking

NEW HOME OF THE CATHOLIC HOSPITAL ASSOCIATION, MILWAUKEE, WIS.
1—Office of the President, Rev. C. B. Moulinier, S. J. 2—A Conference Room. 3—The General Offices.

distance of the Milwaukee Public Library, situated about four blocks from the University. Accordingly, they may anticipate sharing the atmosphere and educational advantages of a university neighborhood.

NEW HOME OF THE CATHOLIC HOSPITAL ASSOCIATION, MILWAUKEE, WIS.

Hospital Progress

EDITORIAL EXECUTIVE COMMITTEE:
Rev. C. B. Moulinier, Milwaukee, Wis., Chairman.
Edward Evans, M.D., La Crosse, Wis.
Edward L. Tuohy, M.D., Duluth, Minn.
Rev. Edw. F. Garesché, St. Louis, Mo.
William C. Bruce, Milwaukee, Wis.

HOSPITALS AND HOMES

Most patients who enter the hospital come there from some sort of a home. On the other hand, those who leave the hospital, discharged or cured, usually return home. The hospital is therefore constantly receiving from the home and giving back to the home, some of its inhabitants.

This very obvious reflection leads to some further considerations which are perhaps not so obvious. What does the hospital plan, what does the hospital do, for the upbuilding of homes, for the improving of homes? The hospital, like all other institutions, is profoundly affected by and dependent on the home. To take one instance out of many, all the workers in the hospital come from homes, are the product of family life, are influenced by the conditions, the atmosphere, the traditions, which surrounded them in their family life in their homes.

The defects complained of in hospital workers are to some degree the result of defects in the home. The lack of a sense of responsibility, a craving for pleasure and amusement, the spirit of self-indulgence, these are complained of as characteristics of modern home life and may show themselves disagreeably in the hospital. Thus the defects of the home are swiftly reflected in the hospital itself.

Again, to take another illustration, it is from the home, as we have elsewhere emphasized, that vocations are developed and fostered. The better our Catholic homes become, the more pious and cultured, the more deeply filled with the spirit of faith, the more vocations they will encourage and therefore the more consecrated workers our hospitals will receive.

Finally, the patients themselves with their defects and virtues, their good qualities and vexatious characteristics, are the products of the homes from which they come and whither they return. By studying their defects, their deficiencies in training and education, the authorities in the hospital can determine what efforts they should make in behalf of the homes.

Few institutions after the school itself, are capable of exercising such an influence on the home as hospitals are. Patients come to the hospital in a docile mood. During their period of convalescence they are willing to be instructed. They have time for much thought and are sometimes in a chastened and reflective mood. If they are parents their attention may be called to their family; their conscience may be aroused to the necessity of good reading in their homes and to the danger of indiscriminate devouring of bad books and magazines. They may be encouraged to learn their religion better and to see that their children are well instructed in the faith. All this may be done tactfully, inoffensively, by way of judicious suggestion.

But if the patients perceive in the hospital itself an intensely Catholic spirit, an atmosphere of faith and charity, this will do more than anything else to prepare them to receive the good suggestions made to them about improving the atmosphere of their own homes. If they find there a great abundance of Catholic books, great esteem paid to good literature, great efforts made to circulate it, they will themselves have an increased respect and love for Catholic literature. If they find in the hospital and hear through the nurses of a fervent sodality, for which sacrifices are being made, which is highly thought of by all, this will tend to make them eager to become worthy members of Catholic societies.

For its own interest, then, as well as for the general interest of the church and of society, the hospital should be actively solicitous for the welfare of the home. Those in charge and those who bear any responsibility in the hospital, should constantly remember the interests of the home. By their prudent conversation, by their own evident appreciation of Catholic faith and piety in the home, by the contagious atmosphere of goodness and faith which they spread about them, by the abundance of good books they provide, our hospital Sisters, the nurses, the staff, all the workers in the hospital, can do great things to increase the piety and the culture of homes.

—E. F. G.

PHYSIOTHERAPY IN HOSPITALS

The September number of this journal (page 359)* has a good resume of present-day mentioned and available physical apparatus. Much of the equipment referred to is already in use in many hospital, or if not, the hospital directors will soon meet a host of forceful agents of various manufacturers who will do their best to impress upon the hospitals that they should buy them. While this is a good time to be cautious relative to untimely expenditures along this line, it is just as truly a period when too caustic criticism upon physiotherapy as a whole should be withheld.

It is incumbent upon us all to keep in touch with the general plan of doing something for our patients besides drug therapy and operative surgery. No one fancies for a moment that these great agencies are going to be displaced, but unless we wish to alienate the good will of many sufferers and drive them into the hands of quacks we must be willing to pay attention to various measures designed to ease their suffering. It is this sort of demand which is presently bringing physiotherapy into the foreground.

The x-ray is now firmly established for its therapeutic advantages, even if we forget for the time being

*Kelly, J. F., M.D., St. Joseph's Creighton Memorial Hospital Omaha, Neb.

its indispensable contributions to diagnosis. What may we say, however, about the future of diathermy? It has a ghastly background of fruitless exploitation by electric manufacturing companies in the making of all sorts of cabinets, each in turn designed to convert the practicing physician into an electrical administrator, if not an engineer.

The claims made for all these appliances, each coming on in turn, were so all-embracing as to stifle at once the interest and enthusiasm of any doctor keenly interested in the science of his profession, and particularly bent upon basing any and all forms of treatment upon *exact* diagnosis. Nevertheless, it may be said in retrospect that some of the electrical apparatus designed and sold did not become obsolete entirely because it was ineffectual in some fields. In some instances, in any case, newer surgical technique aided by different forms of anaesthesia caused their displacement. Many of them might still have their field of usefulness if we gave sufficient time to them to determine their place.

Closely associated with the clinical application of any form of electrical current for the benefit of chronic aches and pains, comes a consideration of the proper use of massage. It seems regrettable that most doctors know so little about the actual technique, if not the clinical application, of this age-old remedy. It would seem possible to introduce proper training in this essentially limited field in all of our schools. Many nurses' training schools already have it.

No hospital should indulge in the luxury of any appreciable amount of physical apparatus without carefully canvassing its staff and determining how much they know about it or how much they expert to use it. This is a basic and fundamental side of the question, and it is strongly urged upon all hospital executives to turn a deaf ear to all salesmen vending their products, until hospital staffs show their interest and prove their capacity to use such hospital adjuncts when installed.

—E. L. T.

THE RECORD ROOM

The hub of the hospital wheel is the record room. There are to be found, if the hospital has any pretensions to justifying the possession of such a title, the written, permanent records of the care of the human beings who have entered and left the hospital.

The administrative offices, the operating room suites, the laboratories, all fulfil essential, necessary functions. But the written evidence of individual application of the hospital machinery is to be found only in the record room.

The filing and indexing of records is an administrative detail of the hospital. The creation of the record, aside from the nurses' notes, is the duty of the doctor; the whole is under his supervision and for it all he is responsible. A good record is "a thing of beauty and a joy forever."

The iteration of these facts is almost bromidic, as the utterance of the obvious usually is. Yet, how many men engaged in hospital work sense "record responsibility," their obligation to patient, hospital, and self, to make records complete and then to review them from time to time as an index of accomplishment?

Devoted and efficient record room staffs can not do it all. A combination of executive and medical officers can do it. The burden should not be entirely on the staff. But it must be done or our record rooms will be catacombs.—F. D. J.

A NURSE'S SERMON

With very much pleasure we use the following Pledge and Creed as a text for an editorial for nurses, religious as well as lay. It is copied from "Modern Hospital" and because of its professional significance as well as for its exceedingly fine literary style, it is worthy of wide publicity.

"My Pledge and Creed

"Reverently do I pledge myself to the whole-hearted service of those whose care is intrusted to this hospital.

"To that end I will ever strive for skill in the fulfilment of my duties, holding secret whatsoever I may learn touching upon the lives of the sick.

"I acknowledge the dignity of the cure of disease and the safeguarding of health, in which no act is menial or inglorious.

"I will walk in upright faithfulness and obedience to those under whose guidance I am to work, and I pray for patience, kindliness and understanding in the holy ministry to broken bodies."

The first word, "reverently," gives the proper attitude of a nurse for the whole pledge. It means a feeling of mingled respect, awe, and admiration toward her work. She should, in a measure, to be a good nurse, have the same reverent regard toward the sick patient that she has for the Deity. And regarding the patient in this sense, it gives the best urge for the nurse to strive for skill in the fulfilment of all her duties, no matter how menial they may be.

Concerning the Pledge and Creed, we feel that it can be in no way strengthened by any attempt to elucidate it with further words. We would ask every nurse, lay or religious, to memorize it and carry in her heart every sentiment contained in it. Thus, she will have ever before her the high and unique privilege pertaining to her calling.

—E. E.

THIS DAY

The possibilities of eternity lurk between the morning and the night. All that yesterday has anticipated, all that tomorrow may profit by, waits on a faithful loyalty to the morning, the noon-time, and the evening. The day, this day, is a thing to be met with reverence, with joy, with purpose. It is the uncut gem that may with love and labor become worthy of God's firmament.

—Charles Ernst.

CLINICAL PATHOLOGY
Review and Digest of International Medical Literature Concerning Laboratory Technique, Laboratory Diagnostic Methods, Laboratory Apparatus etc. Edited and directed by
EDWARD L. MILOSLAVICH, M. D.
Professor of Pathology and Bacteriology, Marquette University, Milwaukee Wis.

Cerebro-Spinal Fluid

This department will attempt to give short extracts of the international medical literature pertaining to valuable aspects of clinical pathology, as regards laboratory technique, modern diagnostic methods, interpretation and clinical application of the laboratory findings, etc. In this manner the laboratory workers (pathologists, technicians, and practitioners) are offered the results of continuous progress concerning their field of endeavor, and are given new opportunities to keep abreast with the latest achievements in their respective fields. To each article will be added the literature perused by the author, so that the reader desiring further information may go directly to the original articles.—The Editor.

The cerebro-spinal fluid (c. sp. fl.) is formed chiefly by the secretory action of the cells of the chorioid plexi; in a lesser degree, by the processes of transudation and filtration of the same tissue.

The absorption of c. sp. fl. occurs mainly by way of the venous circulation through arachnoidal excrescences, the so-called Pacchionian bodies.

Under normal physiological conditions c. sp. fl. is produced very slowly. It is assumed that after the removal of 100 c.c., this quantity will be replaced within three days. A congestion in the venous field of the cava superior accelerates the formation of the c. sp. fl. The newly formed fluid is characterized by a lower specific gravity and by a smaller albuminous content and fewer cellular elements.

The pressure within different parts of the system of c. sp. fl. is not constant, but changes according to hydrostatic laws, position of the body, and depends upon the amount of c. sp. fl. In the exact horizontal position of the body, the pressure of the c. sp. fl. in the ventricles is a few millimeters higher than in the other parts of the c. sp. fl. system.

The c. sp. fl. has no direct circulation, save for a slight current. Under physiological conditions there is no reflux into the ventricles. In the spinal cord there is no secretion of fluid, on the contrary, an absorption; thus, with the body in complete inactivity, there is a gradual ebbing of the fluid in the direction of the cauda equina. While in the spinal canal extensive body movements produce a mixing and ebbing of the fluid, on the other hand in the cranial cavity the rythmic pulsations of the brain are the main causes of the movement of the fluid.

Origin of Cellular Elements

The origin of the cellular elements of the c. sp. fl. is exclusively histogenous, cells of a hematogenous and lymphogenous nature being very few in number. Comparative investigations on both the blood and c. sp. fl. show no relation regarding the number and character of cells. A high degree of leukocytosis in the blood (as in cases of leukemia) results in no material increase in the cellular elements of the c. sp. fl. In a very few cases of paretic and epileptic seizure, there is an increase in the number of white cells in both the blood and the c. sp. fl. The nature of the cellular elements in the c. sp. fl. is dependent upon the inciting factors (etiology) and the reaction of the organism.

It is a peculiarity in the formation of cells in the c. sp. fl., that under pathological conditions there is a predominance of mononuclear types as compared with the reactions in other regions of the body. Mitosis in the cells of the c. sp. fl. has not been observed up to the present time. Under physiological and pathological conditions, the composition of the c. sp. fl. differs in the ventricles of the brain and subarachnoidal space. This can be proven by placing the patient in a sitting posture and removing larger amounts of the c. sp. fl. at regular intervals by lumbar punctures. The concentration of the c. sp. fl. increases gradually from the cervical to the lumbar region as is indicated by albumen reactions, specific gravity, colloidal reactions, and sometimes by the Wassermann test.

Distribution of Cells

The distribution of cells in a normal fluid is dependent on: (a) sedimentation of the cells, (b) their rapidity of disintegration and migration, and (c) ebbing caused by extensive body movements, respiration, pulse, and formation and absorption of the fluid.

Under pathological conditions the distribution of the cells depends on: (a) nature and location of the pathological processes, (b) rapidity of disintegration, migration, and sedimentation of the cells, (c) ebbing caused by extensive body movements, respiration, pulse, formation and absorption of the fluid and rapidity of flow on puncture, and (d) partial or total obstructions to the flow of the liquid caused by adhesions, tumors, fractures, etc.

Under physiological conditions the fluid in the ventricles differs from that in the cord by containing less albuminous substances and having a lower specific gravity.

Under pathological conditions the albumen content of the c. sp. fl. is dependent on (a) nature and location of the pathological processes, (b) quantitative and qualitative formation of the fluid (damaged function of chorioid plexus), (c) absorption of fluid, (d) addition to the fluid of substances higher in albuminous content, produced by various pathological conditions, (e) partial or complete obstructions to the flow of fluid (adhesions, tumors, etc.), and (f) displacement of the fluid brought on by puncture.

Changes in Fluid

By fractional investigation of different portions of c. sp. fl. in cases of tuberculous meningitis, one may find a difference in the number of bacilli in each.

It is important to know which changes may appear in the c. sp. fl. by endolumbar injections of medications for therapeutic purposes.

Every interference in the system of the c. sp. fl., caused by the introduction of a foreign substance into the fluid, produces a transitory increase in the number of cells and in the albuminous content, regardless of whether the fluid is previously normal or pathological. This reaction is ordinarily harmless (in some neurological conditions even beneficial) and disappears completely in a few days to a few weeks. This phenomenon seems to be little known. The more intensive this interference in the c. sp. fl. system, the greater will be the subsequent increase in the cellular and albuminous content. Even a simple lumbar puncture to obtain c. sp. fl., can result in a material increase in cellular elements and in albumen. If the lumbar punctures are repeated frequently in the course of a few days we may observe occasionally the above mentioned pathological reactions in even a previous normal fluid.

The introduction of air into the system of c. sp. fl. may produce an enormous increase in the cellular elements of the fluid; in a few cases, as a result of this, as high as 11,400 cells in a cubic millimeter have been counted. This increase in cells is especially pronounced in patients possessing normal meninges. (In non-syphilitic persons the increase in cells is usually higher than in syphilitics.)

Patients with a normal c. sp. fl. do not resist any interferences in the fluid system as well as do patients having a pathological c. sp. fl.

(To be continued)

Catholic Hospital Association Enlarges Activities in Medical Mission Field

"To link Catholic medical America to Catholic medical missions" is the purpose and slogan of the Medical Mission Board of the Catholic Hospital Association of the United States and Canada, as set forth at the board meeting held at Spring Bank, Okauchee, Wisconsin, July 9th, in connection with the conferences of the Association.

Under the chairmanship of Dr. Paluel J. Flagg of New York City, this department of the Catholic Hospital Association is directing its thought and energies to practical means by which the Catholic medical interests of this country may reach out to some of the needs of medical mission interests.

The scope of the work is indicated by the papers presented at the meeting, and which appear in this issue of HOSPITAL PROGRESS. To facilitate and further the plans which are being formulated, a motion was carried by the board to create an executive committee which will act in close association with Fr. Moulinier, effect an organization for field workers, take steps toward providing a budget, and investigate opportunities for the education of medical mission applicants. This committee includes Paluel J. Flagg, M. D., Chairman; Rt. Rev. Msgr. J. F. McGlinchey, D. D., Boston; and Rev. Frank A. Thill, C. S. M. C., St. Meinrad, Ind. There was also appointed a committee of medical examiners who will pass upon the qualifications of applicants: Paluel J. Flagg, M. D., L. T. Perrault, M. D., and James J. Walsh, M. D., all of New York City.

Hospitals are asked to cooperate in the effort to make known in this country the need for mission workers, and the requirements for their acceptance. They are urged to acquaint themselves with the needs of the missions and in so far as they can, to supply from their equipment no longer in use, the great lack of working facilities among the struggling medical posts of the missions.

In this connection Rev. Edward F. Garesché, S. J., honorary vice-president of the Catholic Hospital Association, and Sodality Editor of HOSPITAL PROGRESS, explained the hospital sodality movement which he is promoting throughout the country, and the sodality mission sections, whose chief purpose will be to aid the medical missions through the establishment of self-denial funds, donations of discarded hospital equipment, and educational propaganda.

The activities of the board and subjects bearing upon medical mission work will appear monthly in HOSPITAL PROGRESS.

Our Catholic Hospitals and Their Mission Service

Rev. Bruno Hagspiel, S. V. D., Techny, Ill.

A few weeks ago I chanced to stop for a part of a day and a night at one of our large Catholic hospitals of the northwest. There was an opportunity for a brief conversation with the Sister superior of the institution, and as we became involved in questions of mutual interest she complained almost bitterly of the greatly increased labor which the Sisters were required, ever more and more, to perform in the hospital service. She declared that conditions frequently reached a point where the proportion of necessitated active service was so great as practically to prevent the Sisters from properly attending to their definite and obvious duties as religious. In concluding this part of her remarks, the superior turned to me with an impetuous motion and burst forth with this final statement:

"Really, Father, life has become just one mad rush after another; and it has come to this, that many of us feel that we would have been better off, spiritually, had we remained in the world."

Now this evidently shows a very serious state of affairs. It indicates a condition that undoubtedly must be remedied if our Catholic hospitals are to continue to exist with the definite distinction of service for which they were founded. If external works of mercy are to be allowed to so far encroach upon the life of a religious that the religious significance of that life comes into grave danger of being lost sight of, then the chief and outstanding efficacy of a Catholic hospital in which the religious serves is also greatly endangered.

Everybody who is in a position to be cognizant of these matters as they surely obtain in many quarters, must also concede that certain changes in the very conception of hospital service and in its administration, so far as religious are concerned, are here radically demanded, and are, in truth, inevitable if Catholic hospitals are to remain truly Catholic as hospitals. To be sure, much of the difficulty would be removed with an increase of candidates to this eminently blessed life of vocations. But the remedy does not lie solely in the question of an increase of forces in the service. The underlying principles involved in the work itself must be reformed or renewed, or else complemented and amplified by the acceptance of principles which are old, yet are, possibly, at this juncture, to be presented to the work in a new form or at least a new aspect. And if this be the case, it may well serve as a warrant for the apparently paradoxical position I shall proceed to take in an intent to show, within the brief space of this short paper, that the conditions of our over-burdened hospital Sisters are to be healed largely by their giving a thought to a far wider field of ministering aid—yes, and not only in the giving thought, but in the manifesting of important interest and the determination actually to aid in this wider field. I refer, of course, to the field of foreign missionary operations.

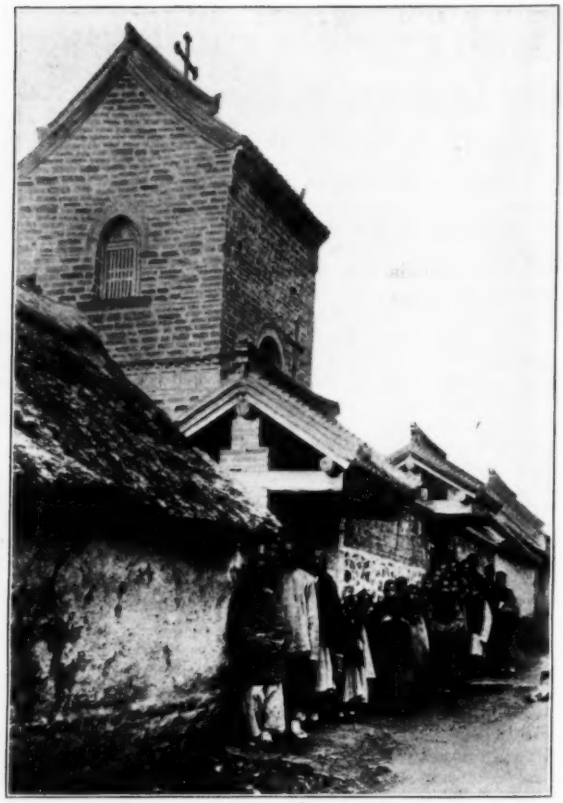
Now that practically all classes of the laity, and even the clergy and religious, have joined in the surging movement toward ever greater cooperation in missionary service, both home and foreign, there appears to be no valid reason why our Catholic physicians and the Sisters and nurses of our hospitals, should not be distinctly identified in this matter by way of prominent participation. And this thought forces itself forward the more in these days when real beginnings are at least being made to launch the project of the so-called medical missions in foreign lands. The medical missions have been carried forward to such an extent in Protestant groups of missionary endeavor that the service has become an all but outstanding feature of Protestant mission work as a whole.

While the chief and overwhelmingly important motive of the Catholic mission is and always will be the intention to "preach the gospel to the poor," nevertheless a constant determination to perform, so far as may be possible and consistent, works of mercy and charity, should never cease to occupy us as representing to those members of our human society who are newly receiving the Lord's message, a first and most obvious exemplification of the power and extent of application of the gospel truth.

Where Responsibility Lies

Therefore the present beginnings among the Catholics of our country, of an interest in Catholic medical missions, is most necessary, and still more necessary to be carefully fostered and advanced. In fact, the work of the Catholic medical missions will never be a demonstrable success until we possess the full sympathy and cooperation—at the first, not finally—of all Catholic physicians, hospital Sisters, and nurses, throughout the land.

Once we come to realize thoroughly that every one who claims to be a Catholic and Christian is bound to



CHRISTIANS AWAITING THEIR SHENFU (I.E., SPIRITUAL FATHER) AT THE ENTRANCE TO A MISSION COMPOUND IN S. SHANTUNG, CHINA.

do his share, not only for the maintenance but for the propagation and extension of Christ's kingdom, there will be found no real difficulties in securing ways and means to entertain and enter into this proposed extension of ministering operations. It is wonderful how a single determination to attend upon really great matters of any kind will at once, as by automatic process, tend to sweep away at one stroke, a thousand and one lesser cares and seemingly necessitous agonies. It is one of the most marvelous and blessed features in all Christian service, that an attention upon greater issues always carries with it, in some marvelously divine and mysterious manner, an adequate provision for all the lesser concerns that have gone before. Therefore, a larger Catholic and Christian outlook upon Christ's and consequently our mission, never increases the burden of labor and anxiety, but rather lessens it while enhancing the efficiency of service.

Our great Catholic medical, nursing, and hospital personnel can, in the first place, begin to enter upon and cooperate in this enterprise of the medical missions without the least addition of burden or extraordinary strain. When the absolutely indissoluble connection between works of mercy (medical and hospital service is here especially referred to) and missionary service is perceived, then medical and hospital workers will certainly become imbued with the sense of responsibility which devolves upon them to accomplish a proportionate share in advancing the work of redemption according to the provisions of our Lord Jesus Christ, and in accordance with the apprehensions of St. Paul, when he said, "Woe is unto me, if I preach not the Gospel of Christ." (1 Cor., 9:16.)

This sense of responsibility to which I refer will be engendered in the minds of our medical and hospital fraternity in the degree that we all come to look upon the world as our Lord looked upon it when in His agony on Calvary. Evidently He died for all, regardless of race, creed, or nationality; and since He did not intend to remain visibly among men to the end of the world, He left the work of the continuation of His redemptive labors to His church. And since the church consists not alone of the Pope, the bishops, and the clergy, it is evident that all classes among the faithful are called into this service; surely, then, this leaves no reason to believe that our Catholic physicians, hospital Sisters, and nurses, should be especially excluded from the work; rather the reverse is to be held. Our Lord's great final commission, "Go, ye, therefore, teach ye all nations * * *"—comprehends the Christian world, and seems especially to include those whose activities come within the scope of His own particular example.

To Those Who Doubt

What, then, shall we say? Shall we ask if there are any among the readers of HOSPITAL PROGRESS who still retain the entirely un-Christian and un-Catholic standpoint which argues: let us take care of our own *first*, and then, and *only then*, take time to consider others? Of course I am bound to admit, just here, that I have even recently met persons in the ranks of both religious and lay people, who seem to hold this view. But if the apostles and their early successors had been of *their* color, many of us here today might have been destined to follow in the procession of the hordes of the godless and hopeless.

Or is it nothing to our Catholic physicians, hospital Sisters, and nurses, that even today, after nineteen hundred years have gone by since the giving of the Great Commission, there are yet one-half and more of living mankind bowing themselves before idols and graven images of stone, pottery, and wood?

Or is it nothing to the entire medical fraternity, as well as to the rest of the members of organized Christendom, that an average of 140,000 human beings a day are still going down into the grave and the depths of Sheol, without having ever heard the blessed name of Jesus who is Christ the Saviour, or of Mary the Blessed Mother of God, or of all the multitude of consoling and edifying truths which belong to our common Christian heritage?

It is neither possible nor suitable here to do more than touch upon the wretched and most deplorable social conditions which prevail among pagans nearly everywhere upon the face of the earth—of slavery, infanticide, and women's wrongs, not to speak of the more abominable conditions, both causes and results of superstition and disease. These matters alone, if brought fully and generally before the mental vision of our people whose profession is to minister to the ills of mankind, would, I am certain, be more than sufficient to compel most of them to take an entirely different attitude toward their fellow men in far-off lands.

Even though the very principles of Christianity were wanting in a full explication of duties in this field, the very fact of the most prolific Protestant activities in this service should be sufficient to make us alert in all these considerations.

Moreover, and again quite apart from any dogmatic utterances, any one conversant with holy Scripture is well aware of the manner in which our Lord combined

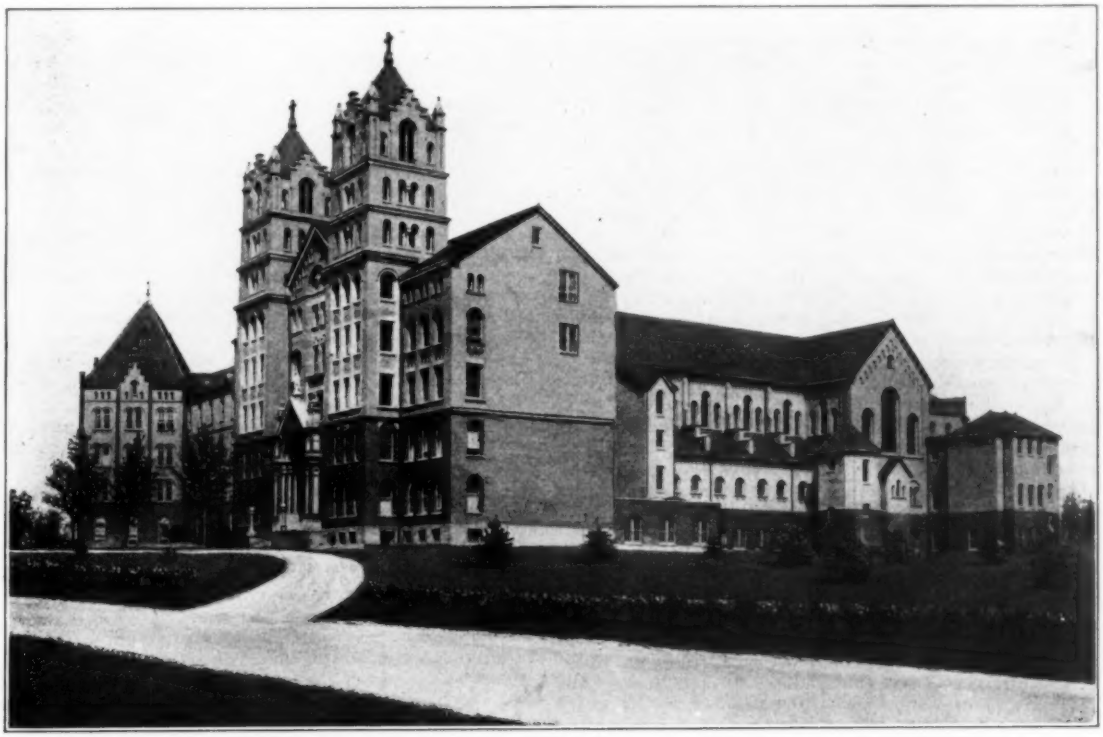
FOUR FATHERS S. V. D. AND ONE BROTHER S. V. D. WHO LEFT TECHNY, ILL., FOR CHINA SEPTEMBER 21, 1924.

the healing action with the propounding of the principles of Christian acceptance and daily living.

Yet it is only fair to admit that much has been done and is being done by Catholics in the way of assuaging the physical ills of the native populations in the mission fields; but all of this work, practically speaking, has been carried on in quite haphazard ways. There are many wayside dispensaries in mission lands, faithfully maintained by members of the religious Sisterhoods and individual priests and brothers; but few and far between are the hospitals, and even those that exist are nearly always sadly wanting in anything like full equipment for thoroughly efficacious service. The entire lack of medical service in Catholic mission fields is principally due to the need of a sufficient personnel of certified physicians and nurses.

Or if I here seem to be talking fantastically, or merely for rhetorical effect, I must ask what we are to make of our Lord's assurance: "Give, and it shall be given unto you: good measure and pressed down and shaken together and running over shall they give unto your bosom. For with the same measure that you shall mete withal, it shall be measured to you again." And mark me well! I am here referring to *personnel* and not to money matters.

It always makes me smile to hear almost invariably when I propose this matter to superiors of hospitals: "Father, we can't spare one single Sister—not until we get an abundant supply of vocations can we hope to do or even think of anything of the kind you propose." I wonder whether the time will ever come when any of our



ST. MARY'S MISSION HOUSE—COLLEGE AND SEMINARY FOR FOREIGN MISSIONS—TECHNY, ILL.
THE FIRST CATHOLIC INSTITUTION ESTABLISHED IN THE UNITED STATES
FOR THE TRAINING OF FOREIGN MISSIONARIES.

A Future Hope

It is the purpose and intention of the Medical Mission Board to prepare the Catholic medical world of the United States to look well into these medical requirements on the missions, that they may see the need and may find a way to proffer ever more and more adequate medical assistance in fields outside of their own immediate purview. And the consideration of these purposes and intentions leads directly back to what was said in the beginning of this article. What was there asserted implicitly is now to be stated explicitly.

If our Catholic physicians and our Catholic hospital Sisters and nurses could only be brought to perceive the spiritual principle involved in mission work of the sort we are discussing, as it is applicable to their own status in religious service, they would at once come to understand how, by reaching out and undertaking at least some little hospital work in foreign mission fields, they might infallibly insure an increase in their own efficiency at home, and would almost certainly obtain a marked increase in their own personal forces, through the admission of candidates for their calling. If they could only grasp all this as a spiritual reality and potential actuality, well, what might not be hoped for in the way of gospel gains on all sides!

hospital communities will be able to report: "Now we have a sufficiency of helpers; now we can turn to the foreign missions." Ah, but why should we not all exemplify more faith, and proceed rather in accordance with the Lord's own method, fully expecting to receive of that "good measure and pressed down and shaken together and running over?"

Those Who Give

I am sure that it cannot be successfully maintained that the Providence Sisters, of St. Mary-of-the-Woods, Indiana, or the Sisters of Loretto (Kentucky) have suffered here in their American communities because a few of their Sisters have been suffered to go out and labor in China. I rather understand that the contrary has come to pass—that many persons have since joined their communities, numbers being filled with joy that they will at least be able to participate in the chance of being sent out to do mission service in foreign lands.

Missionary activity, I tell you, is the vital spirit of Christianity which makes a single human being or a whole community (or the church itself, for that matter) truly *alive;* when the mission spirit is entirely wanting, we have little else than a purely nominal and machine-like parody of Christian life. This is the very reason why I am here so strenuously advocating a consideration of the

missions on the part of our hospital Sisters: it will bring back to them the full force of Christian life—that life which Jesus came to bring to us "more abundantly." It will be as the refreshing "water of life" which was offered to the Samaritan woman, a veritable well of living water, increasing in them a vigorous efficiency which will redouble their powers both physically and spiritually.

Thank God! Great joy was brought to the hearts of some of us recently when it was reported that the hospital Sisters of St. Francis, of Springfield, Illinois, were making preparations to establish a real hospital center in a Chinese mission field. God grant that many another community may follow in taking this truly advanced step of loving trust and faith in the very *life* which their Lord has offered to them!

Practical Help

But meantime let us look to other practical measures which may be forwarded within the confines of the home circle. To one and all I would make the following plea: Is it too much to ask that you recite a little prayer occasionally for the struggling missionaries in foreign lands? And again: Is it too much to ask of you, hospital Sisters, that you give to your nurses a full opportunity to become aware of mission work and mission needs, in order that we may look to some of them, at least, to come to our aid in future days, after leaving your institutions? Is it too much to ask that every Catholic hospital in this country adopt one little dispensary, or so-called hospital, somewhere out in China, or India, or in the South Seas? You will be surprised to learn of the comparatively nominal cost of maintenance of one of these little oases of comfort and mercy in the pagan deserts.

If matters were to be properly conducted, with full cooperation from the full hospital force of a single institution, the cost of this service "ad extra" in the foreign fields would call for a sacrifice hardly appreciable. Again, a very great help could be afforded by any hospital willing to send out to the missions a part of the vast accumulation of ("sample") pharmaceutical stores, of standard medicines, of bandages, gauzes, linens, clinical and surgical tools and supplies. Many have already come to the fore in this last work, and the amount of saving and help in the missions has already been considerable. If detailed information is sought with regard to any of these proposals, or if advice is wanted, any of the mission societies of the country (Techny, Ill.; Maryknoll, N. Y.; Holy Cross, South Bend, Ind., etc.) will be ready to make immediate response, and the Medical Mission Board (410 E. 57th St., New York City) will gladly supply all kinds of directions and assist with counsel and full cooperative interest.

To conclude, let every soul, singly, and every community, considered as a religious body of holy church, take up this whole question seriously, each and every unit of power and cooperation being determined to rise to the occasion, to offer a full share of service and support to the medical missions from now on and forever! Remember, we must consider mission work the most essential task of holy church. Let us come to her aid in propagating the gospel and in alleviating the sufferings of humanity. Let us cooperate with the apostles, and we shall receive the rewards of the apostles!

A PROPOSAL FOR MISSION HOSPITAL AID

Although the Society of the Divine Word administers to numerous missions in pagan lands, in China, Japan, the Dutch East Indies, New Guinea, the Philippine Islands, and among the Indians of South America, its present most critical need of assistance in carrying on medical relief work lies within its mission territories of China and Japan.

With the exception of the hospitals in Kanazawa City, Japan, and in Tsingtao, Shantung, China, respectively, there are really no up-to-date hospitals in any of the missions of the Fathers of the Society of the Divine Word. But medical help is being given rather extensively in infirmaries, dispensaries, and pharmacies in many districts throughout all of their mission fields.

It would be a tremendous boon to these Fathers, and to their missions, if certain hospitals in the United States could severally see their way clear to offer to adopt one or more of these wayside dispensaries or medical stations. The word "adopt" is intended to indicate a volunteered responsibility for regularly securing medical and surgical supplies for these modest institutions.

In the vicariate of South Shantung there are at the present time six such medical dispensing stations. They are located as follows:

1. Yenchowfu—
   (a) Dispensary for men, in charge of Brother Rudolph, S. V. D.
   (b) Dispensary for women, in charge of the Missionary Sisters, Servants of the Holy Ghost.
2. Tsining—
3. Shanhsien—
4. Puoly—General dispensaries (i.e., for both men and women) in charge of the Missionary Sisters.
5. Ichowfu—
6. Taikia—

For each one of these stations, about $150 worth of supplies is annually required. Of course, the expense varies somewhat in proportion to the amount of work received and undertaken. This amount in no way provides for maintenance or actual equipment; the Sisters in charge undertake to meet these requirements as a part of their mission service.

How to Help

But supplies may be sent duty free to the Far East (except, perhaps, Japan). Thus the actual burden of assuming responsibility for the adoption of one of these mission dispensaries is comparatively little. However, the aid and relief thus offered to the mission workers would loom large indeed in the eyes of the workers themselves. The supplies required are the ordinary medicines and hospital materials principally used in our free dispensaries at home: preparations for skin affections, for wounds, for cholera, for dysentery, for fevers; also disinfectants, antiseptics, and the usual standard drugs of an ordinary pharmacy.

In the vast province of West Kansu, in China, the Reverend Father Hufnagel, S. V. D., has associated with him a European certified physician, and they are gradually increasing the scope of medical and surgical aid in this region, although they are sadly hampered through lack of funds. It goes without saying that they are most anxious to establish a well-equipped hospital. But even an absolute certainty of the yearly receipt of necessary hospital supplies, to the amount of $300, or the cash itself, would be a cause of the greatest encouragement for them.

In Kanazawa, Japan, also, a certified European physician is in constant attendance at the hospital. The S. V. D. Mission pays this physician $400 per annum—barely sufficient to meet his actual expense; for the rest, he gives his services free. However, the society finds great difficulty in meeting even this insignificant money requirement. Perhaps some hospital or religious community would be willing to defray this expense.

Finally, it is proper and necessary to mention the *Aishikwai*, a native Sisterhood in Akita (Japan); a community but recently developed yet performing excellent service through their administration of a dispensary and infirmary. They are struggling heroically with all the difficulties and obstacles which poverty so easily brings about. The possibility of being able to place some dependable reliance upon an American hospital ready to guarantee to them their indispensable supplies, would be a boon and a real Godsend.

THE SISTER'S PRAYER

Sweet Lord, indeed I am Thy loving child,
And long to do the things that give Thee pleasure.
So now take every moment of my leisure
And let all souls through Thee be reconciled
Whose lives touch mine, and words of joy so mild
Placed on my lips as if my speech would measure
Thy great truths and keep them as a treasure.
Let charity and kindness undefiled
Prove love unto my neighbor and for all
Who ask my simple prayers. May every glance
Of mine blend with Thine own until it seems
That I behold each soul as one entranced,
And then, Beloved, wilt Thou smile, and call
Thy spouse and hold her as Thou dost in dreams?

—Mabel Adams Ayer.

Medical Mission Work in Han Yang, Hupei, China[1]

The medical department of the mission has three doctors, Robert F. Francis, M. D., Patrick J. O'Donoghue, M. D., and Otto M. Scheuerman. Doctor Francis is located in Han Yang and looks after the sick in the southern part of the district. Mr. Scheuerman is located in the central part, and Doctor O'Donoghue looks after the northern section. These doctors cooperate with the priests in the various sections; they visit the homes of the poor; they bring before the people in a very tangible manner the charity and love of the church for her children; they create an atmosphere of confidence and friendship and thus give immense assistance to the priests in reaching the souls of those people.

Since the department was opened in 1921, 25,771 patients have been treated, while twenty-eight medical stations are being visited regularly. Large numbers are vaccinated yearly. Smallpox comes periodically and the most frequent victims are the children.

Dispensary Notes by Doctor Francis

The following medical notes were written on the progress of the first dispensary in the mission three and a half years ago. They deal in a general way with the progress of the medical mission during the first year of its establishment. Since then other district centers have been established. Twenty-six medical mission stations are now being attended by three doctors. Doctor Francis, the first of the three, arrived in China early in the year 1921. A year later he was followed by Mr. Scheuerman. Doctor O'Donoghue has since joined them.

We are happy to say that our medical branch, comprising a well-equipped dispensary and a surgical-treatment room, is running at top speed. Already it has given us an insight as to our future possibilities and demands, and one, a laboratory, is an urgent necessity in the near future. To meet the demand for medical supplies, etc., and to be able to care not only for the incoming patients from the immediate vicinity, but also the demand from our other missions, we shall be obliged to make our own preparations.

Although our medical branch has been in operation but a few weeks, we have been visited by all sorts of unfortunates ailing from some cause or other, and the average has been about twenty patients each morning up

The Medical Staff at Han Yang
The Surgical Room at St. Columban's Medical Mission
One of the Pitiable Cases Which Our Medical Mission Benefits
Dr. Robert F. Francis, St. Columban's Medical Mission, Han Yang, China.
To Such as These is Christ's Mission of Mercy
The Dispensary at Our Medical Mission, Han Yang
Some of the Patients Who Cluster Daily 'Round the Door of the Medical Mission

ST. COLUMBAN MISSION IN HAN YANG, CHINA.

[1]A synopsis taken from the general report of the work of the mission, made by Very Rev. Edward J. Galvin, M. Ap., Director of the Society of St. Columban in China. The report covers the period from March, 1921, to March, 1923.

to 12 o'clock, not speaking of the patients who come outside the regular hours. (The total number some days is as high as 75.)

The various cases we must meet and give attention to are skin diseases (forming the highest average); diseases of the eyes and ears coming next, winding up with the general expectations of the various ailments coming within the scope of the general practitioner.

Surgical operations are now daily occurrences at the mission. It is nothing new to find patients brought to us on bamboo cots or chairs carried by coolies perhaps many miles. At the time of writing, we have more than 175 regular patients who come for treatment at short intervals.

Just today a patient came from the neighboring province of Honan, and I have been frequently called to attend famine sufferers who fled from their homes in the north in terror of the scourge.

The spiritual aspect of this work of mercy is already becoming very evident. Poor people come and are agreeably surprised at the attention and care that is given them, and after a few visits to the dispensary, express a wish to join the church. During the past few weeks almost a dozen converts were brought in through the medical mission. We expect others to follow soon. It is results like these which keep us inspired and encouraged in spite of the many hardships and dangers to which we are daily exposed. It looks most promising for the conversion of souls.

The second month was one of great interest, anxiety, and grand success. We have treated more than four hundred patients this month, and had 272 on the regular treatment list for the month of May. I have now on list the very best families of Han Yang and vicinity.

Among our many cures we had one especially worth mentioning—an attempted suicide who had taken about two ounces of pure nitric acid, which is always fatal if taken in similar doses and like conditions. This man was brought into me about an hour and a half after taking the poison. It was hard work but we saved him. Besides we had the pleasure of baptizing him. He lives and is at his work today. Had I sufficient space, I could relate many other cases which would prove equally interesting to the medical profession as well as to the layman.

In addition to the regular routine of our dispensary, we took charge of about sixty famine victims. We fed them, treated them, and clothed them. Those who died we buried, and sent the survivors home. Out of this number seven have come to the light of faith, and others are coming. One especially (whose wife died here) refused to go home but pleaded to be given shelter and food at our mission in return for work which he is grateful to perform. He does this as the only means through which he can show his gratitude toward us for what we have done for him and his wife in their misfortune. His wife died a Catholic and he will be converted before this letter reaches you.

I may mention also the fact that since we make a little charge for the medicine to those who are able to pay, I can see our dispensary in the near future a self-sustaining department of the medical branch.

Several attempted suicides were brought in, saved in body, and I hope in soul. The total number of patients treated by our medical branch for the month was 800; 500 in Han Yang, and 300 in Tsai Tien City. We could double that number if only we had more space and the proper accommodations. No number is too great. The more patients we have, the better results we can procure for God's glory.

The wonderful month of July is gone. But in spite of its tropical heat, which hindered many from coming to our dispensary, and my absence of two weeks from this district, we treated nearly 600 patients. During the last few days especially, due to the fighting and unrest in our vicinity, we were flooded with wounded soldiers. It is a pity that at present we are not able to do more for the poor people.

The greatest handicap to the work is want of proper equipment. Our present dispensary and surgical room are crowded. If we had only more space and better appliances—but for these we need more money. There is no surer way of gaining the confidence of these people than by relieving their distress; and there is no more certain way of leading them to God.

August with its extremes of tropical heat, its cholera and other summer complaints, has passed without any unusual happenings to the personnel of the mission. It was a busy month all around. In our dispensary and surgical room, more than one thousand patients were treated. The majority of those were children or wounded soldiers. Large numbers of children were brought from all distances, and in a pitiful condition. The sight of some would turn a heart of stone to tears. Not a few of the poor little waifs were dying or beyond hope. We could only administer baptism instead of medicine and let them pass into the Great Beyond where suffering ceases.

If we could only give all these the care which would have saved them. But it will take time before this can be done. It will require churches, schools, and hospitals, and a personnel of unlimited sacrifice.

Passionists Medical Mission Field in China

Report by Very Rev. Stanislaus Grennan, C. P., Provincial.

The American Passionists, in the year 1921, were entrusted by the Holy See with one of the most difficult Missions of China—that of Northwestern Hunan. Our territory comprises 15,000 square miles, or an area as large as one-third of Pennsylvania. The population is about five million, of which only two thousand are Catholics; the rest are pagans, the rankest kind of idolatry, even devil-worship, being practiced.

We have at present in this field twelve priests and one lay brother. Another band of thirteen priests sailing on the 22nd of July makes in all twenty-six missionaries in three years. Until now our mission has had no Sisters and no school deserving the name. Thank God, we have at last secured the services of the Sisters of Charity from Convent Station, Newark Diocese, New Jersey. A band of five sail on September 30th.

As for the medical aspect of our mission, it is most deplorable. Owing to the climate, to the poverty and ignorance of the natives, and chiefly to wretched sanitary conditions, disease of all kinds, especially cholera, typhoid, and malaria, are prevalent, particularly during the summer season, which is exceedingly warm in our latitude.

The Province of Hunan usually suffers most from the famines, which owing to the draughts, periodically devastate parts of China. Thus on the very arrival of our first band of missioners three years ago, they found starvation staring them in the face, and hundreds of thousands of the sick, and the dying, and the dead lying on all sides of them. To this sad picture must be added the appalling evil of infanticide. Thousands of babies are thrown away every year on the streets or into the rivers by their unnatural mothers.

As our section of China is wild and undeveloped, and overrun by bandits, the government, which is most unstable, has accomplished little or nothing in the way of public help to the sick and dying. Chinese physicians are few and their mode of treating disease is very primitive.

Needs of the Mission

Our mission as yet has no hospitals, no trained nurses, and no Christian physicians. On the other hand, the various Protestant sects which have penetrated into every part of our territory, are fast erecting hospitals and schools of medicine, and bringing over from America physicians and trained nurses to aid their missioners. As the corporal works of mercy have ever been one of the most effective means for opening a pagan land to the

gospel, you can readily understand the material advantage the Protestant missionaries have over us.

To offset this and to supply the lack of hospitals and physicians, our missioners are forced to play the role of medical men as well as ministers of the gospel. They must pull teeth, perform minor operations for the wounded, and administer simple remedies to the sick and dying. Hundreds of patients are thus treated every month by some of our missioners. To prepare for this sort of service each new band has taken a course in first aid before starting out for China. About a year was spent by each group in medical training under an able and generous Catholic physician of Pittsburgh, Pa., Dr. John Rectenwald.

As our mission is a new one and in need of everything, any assistance in the way of medicines, bandages, and surgical instruments, will be most gratefully accepted. But what our missionaries require most in the medical line is the services of a few devoted Catholic physicians from America, and of a zealous band of trained nurses. With these auxiliaries, our missioners, like the Protestant missionaries, will be better able to help the poor, the sick, and the dying, and will thus gain an entrance for the gospel.

God grant that this fond hope of ours will some day be realized through the Medical Mission Board of the Catholic Hospital Association of the United States and Canada.

Sodality Work for the Missions

Edward F. Garesché, S. J.

Though the activities of sodalities for nurses in training are necessarily limited by the circumstances under which they work and live, still there are some lines of effort which they can very well carry on. It is not so much a question of taking up many different enterprises, for the exigencies of the pupil nurse's life make many activities impossible. Rather we must find things which the nurse sodalist can actually accomplish, and must then limit our suggestions to what is practicable for them.

The fact that they cannot do everything which other sodalists can is no reason why the nurses should be condemned to do nothing at all. One work which they can take up as well as any one is the aid of the home and foreign missions. Ways may be found, even in the most busy training school, for enlisting the sodalists in this activity, and it will be surprising in the long run how much the nurses can accomplish that is useful and practical for the missions.

Special Mission Section

A special group of sodalists who are particularly zealous for the missions should be formed into a committee with president, secretary, and treasurer, to be called the Sodality Mission Section, to take special care of the interests of the missions and to remind the other sodalists to help them. This section should have its meeting for a few moments immediately after the regular sodality meeting and its reports should be read during the business meeting of the sodality itself. The student nurses may affiliate with the Catholic Students' Mission Crusade.

The first activity in behalf of the missions which all the sodalists can practice, consists in earnest prayer for the success of the missions, both material and spiritual. In their communions and masses, in their morning and evening prayers, and in the intention by which they offer up every morning in union with the Sacred Heart their prayers, works, and suffering of the day, the sodalists should include a fervent intention for the welfare of the missions. They should pray earnestly that the missionaries, priests, Sisters, and brothers who are laboring to spread the faith in home and foreign fields, may be blessed with both spiritual and temporal aid. The need of prayer is very great wherever spiritual work is to be done, and this is particularly true when there is question of conversions to the true faith, either in the home or foreign field.

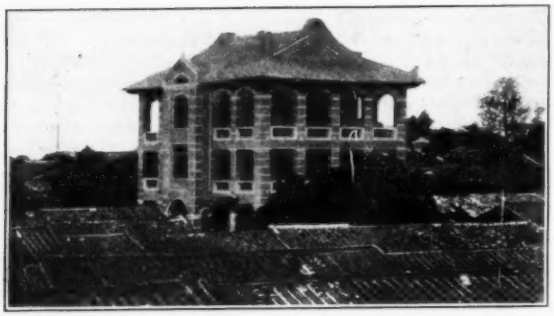
Next, the Mission Section should encourage all to help in a material way according to their means, in the work of the missions. Graduate nurses can make substantial offerings if they will. Student nurses are, of course, usually not able to give much to the missions, but their mite cheerfully and lovingly given is of no little importance as an evidence of good will, interest, and zeal, for the spread of the faith.

Self-denial Fund

One of the best means we can suggest for systematizing the work for the missions among nurse sodalists is the establishment of the Self-denial Fund. The idea of this fund is as follows: There are many little expenses which upon reflection will be found unnecessary; sometimes indeed they are actually detrimental. Thus, how many nickels and dimes go for car fare for short distances where it would be more beneficial to walk? How much small change is expended for confectionery, for ice cream in summer, for various knick-knacks of no particular use whatsoever? The principle of the Self-denial Fund is to make little acts of mortification by refraining now and then from buying such articles and to give the money thus saved to the missions.

A double benefit comes from this practice. There is the merit of personal mortification and self-control and besides there is the substantial aid given to the needy missions. If in each training school each nurse performed even one act of self-denial during the week and gave the money to the Self-denial Fund, say to the amount of a single dime, where there were fifty nurses this would

PART OF THE COMPOUND AT MARYKNOLL-ON-HUDSON, NEW YORK.
In foreground: Novices' chapel; Novitiate farm buildings. In trees: A Sisters' dormitory. On hilltop: Rosary House, temporary Mother-House of the Maryknoll Sisters. (The new American Foreign Mission Seminary is now rising just beyond the crest of the hill.)



FIRST MARYKNOLL MISSION CONVENT, YEUNGKONG, CHINA. BUILT TO CONSERVE THE HEALTH AND USEFULNESS OF ITS OCCUPANTS, IT RISES ABOVE THE ROOFS OF ITS ONE-STORY NEIGHBORS.

amount to something like two hundred and fifty dollars in the course of a year. If all the Catholic nurses in training adopted this salutary practice, it would mean at least twenty-five thousand dollars as an annual contribution, a sum which might result in the saving and sanctifying of countless souls. Of course, this perfect record is hardly to be hoped for, but these figures give some notion at least of what the small contributions of many can do for the missions. The graduate nurses could easily give much more as the fruit of their self-denial.

The Mission Section can also organize from time to time small entertainments in aid of the missions. The members can collect books and other useful articles to send to missionaries whose addresses may be obtained from the missionary societies. They can likewise gather up articles no longer wanted in the hospital but which would be of welcome usefulness if sent to the mission hospitals. It is a capital idea, in the case of a large training school, to have the sodalists adopt some special mission hospital and try to send thither whatever supplies and furnishings the sodalists can collect.

Practical Gifts

Bandages, absorbent cotton, drugs, and instruments which may no longer be of use in well-to-do and sumptuously furnished hospitals here at home, would be a God-send to the poor and struggling mission hospitals. It is said that old linen which no longer serves its original purpose in the hospital can be used by cutting out the good and serviceable pieces for finger towels, etc., for the missionary priests to use. Some sodalists have also found it practical to obtain worn-out vestments from the city churches where they no longer are wanted, and by putting in new pieces of silk or braid refresh them enough to make them most welcome and serviceable in the poor mission chapels where the priest has sometimes scarcely the essentials for the decent celebration of the holy service of the mass.

The nurse sodalists who have special care of the mission work should also become thoroughly acquainted with the needs of the missions and should correspond with some missionary priests and Sisters to find out from them just what they need and want and how they can be aided. They can re-mail to the missions in far-off lands or to mission districts at home, Catholic magazines and papers which are no longer wanted about the hospital, and can thus cheer and help the lonely missionaries who crave for news from the Catholic centers.

Special Supplies

Sometimes, too, the Mission Section can send out special supplies to the missionary Sisters. We remember once receiving an interesting and touching letter from a Sister who was working with two or three of her community in an African village fifty miles from any other white folk. She specially wanted some photographic material as she had a camera and wished to take pictures to interest those at home in their work and show what the Sisters were accomplishing. The difficulty she had met was that all the photographic supplies they could buy thereabouts were spoiled by the heat and dampness of the climate.

Through correspondence with a large manufacturer of photographic materials we found that it was possible to send films and papers in sealed cans, impervious to moisture and heat. The films were accordingly forwarded in these special packages and in reply came a note from the Sister expressing her joy and gratitude at being at last able to take good pictures of her charges. In some such way the nurse sodalists who have joined the Mission Section can learn of and minister to the needs of the missionaries, priests, Sisters, and brothers.

All this will not necessarily involve any very serious expenditure of time or money. If the work is systematized, an hour or so every week will be sufficient to conduct correspondence, etc., and if this is too much time for the secretary of the section to give, she can get some of the others to help her. It would be very interesting to read from time to time to the sodality at general meetings, some of the more entertaining letters received from the missionaries.

A small box should be put up in some convenient place in the nurses' home and marked Self-denial Fund, and into this the nurses can drop whatever pennies, nickels, or dimes they save through their acts of self-denial. At the end of each week or month, as is more convenient, the contents of the box may be removed and sent by check or money order to the sodality Self-denial Fund, care of "The Queen's Work," 626 N. Vandeventer Street, St. Louis, Mo., from where it will be sent to the missions.

Further Suggestions

The collection of postage stamps of larger denominations than two cents is also a good way of helping missions, and some of the nurses who are interested in this may get their friends who work in offices to save stamps of large denominations and send them to the nurses' sodality, where they can be bundled together and sent to a mission center. Many hundreds of dollars are gained for the missions every year by selling canceled stamps of larger denominations. Collectors of different lands pay for these stamps, which are bought and redistributed by stamp-selling agencies.

In all these suggestions we have not lost sight of the special difficulties which attend this sort of work in the hospital, where every one's time is so much taken up and where it is so hard to find energy and leisure for such activities. Experience has shown, however, that where there is a will there is a way. After all, many moments of time offer themselves which can be profitably and interestingly used to do a bit for the missions. If an energetic group of nurses once take up with enthusiasm the mission work, they will surprise themselves as well as others by the amount they can do in spite of their other occupations and the other demands upon their time. We, therefore, recommend to all the sodalists a special interest and zeal in behalf of the missions, and to every sodality the formation of a special section to systematize and encourage the work. This is the hour of God in the foreign missions and our Catholic nurses will wish to have their share in this holy work of spreading the faith.

SISTERS FOR MISSIONS IN CHINA AND KOREA.

SECTIONAL CONFERENCES of Catholic Hospital Association of The United States and Canada

Kansas Hospitals Join Missouri Conference

Annual Meeting Held in St. Louis

The amalgamation of the Kansas and Missouri Conferences of the Catholic Hospital Association took place in connection with the third annual meeting of the Missouri Conference in St. Louis September 2nd, 3rd, and 4th. This action combines with some twenty-two hospital members of Missouri, seventeen Kansas hospitals, and extends to a wider group the advantages of St. Louis University and the larger hospitals of Missouri, which are more accessible to the Kansas Sisters than many of their own hospitals. A stronger organization with numerous benefits to both states is expected to result from the affiliation, and reports will be heard with considerable interest at the 1925 meeting of the Missouri-Kansas Conference in Kansas City, Mo.

President—Sister Mary Constance, St. Anthony's Hospital, St. Louis, Mo.
First Vice-president—Sister Rose Victor, Providence Hospital, Kansas City, Kans.
Second Vice-president—Mother Mary Agatha, St. Joseph's Hospital, Boonville, Mo.
Third Vice-president — Sister Mary Gertrude, St. Francis Hospital, Maryville, Mo.
Secretary-Treasurer—Sister Mary Aloysius, St. John's Hospital, St. Louis, Mo.

His Grace, Most Rev. J. J. Glennon, D. D., Archbishop of St. Louis, celebrated pontifical high mass the opening morning in the chapel of St. Anthony's Hospital, assisted by representative clergy and the Sisters' choir of St. Anthony's Hospital. The sermon was delivered by Rev. John J. Butler, Secretary of the Central Bureau of Catholic Charities in St. Louis, and the visiting delegates were welcomed in brief remarks by the Archbishop.

Missouri President Reports

Conference sessions, held at the St. Louis University School of Medicine, opened the afternoon of the 2nd with the regent of the school, and the director of the conference, Rev. A. M. Schwitalla, S. J., presiding. Sister M. Giles of St. Joseph's Hospital, Kansas City, retiring president of the Missouri Conference, gave the opening address, including the report of the Conference for the previous year, which recorded that one new hospital had been built; 27,105 patients had received care in hospitals; 43,108 patients had been treated in out-patient departments; 185 of the hospital Sisters are registered nurses; 51 are trained for some specialty; and 55 are taking a regular nursing course in training schools.

A paper on "Hospital Management and Housekeeping" was read by Sister M. Constance of St. Anthony's Hospital, St. Louis, who treated the subject of management from the scientific, financial, and sociological aspects, and defined the well managed hospital as one efficient in its attention to each of these phases. Under the topic of housekeeping were considered apparel, or uniform; the floor supervisor in her capacity as head housekeeper of her department, and her responsibilities.

In a brief discussion of the paper, Sister M. de Chantal, St. Mary's Hospital, St. Louis, suggested that efficient management, embracing good housekeeping, may best be maintained and strengthened by the interchange of ideas and opinions, effected through regular meetings of the heads of departments. Also as an asset to good management, Sister de Chantal recommended that each department head prepare for the hospital buyer, a list of the number and kinds of articles needed in her particular work.

"The secret of success in hospital management and housekeeping," she said, "is unity; the working together of all the various parts which go to make up the great whole, in a smooth manner. Thus is attained the end and aim of the entire establishment—the best service and highest good to the patient; the inspiration and guide of the student of medicine."

Study of Practical Things

A paper entitled "Economical Purchasing for Hospitals," written by Sister M. Gertrude of St. Joseph's Hospital, Boonville, placed large responsibility on the buyer of hospital supplies, and demanded of her a fine power of discrimination. It encouraged her assimilation of ideas through intelligent intercourse with practical salesmen, and commended her prudent judgment as the forerunner of saving and after-care of supplies.

A discussion of purchasing made advantageous contracts dependent upon a knowledge of seasonal fluctuations; economy, upon good quality; and in the small country town, the effecting of economies, upon a cordial and constructive relationship between the hospital buyer and the tradesmen who serve her district. It cautioned against a frugality which loses sight of the patient's welfare, and proposed a general storeroom as a means of facilitating inventories and consequently, purchasing.

The charity and kindliness which help to create a favorable impression upon the patient entering the hospital, and the proper consideration on his leaving, which makes easier the work of follow-up, were extensively commented on in a paper by Sister M. Gertrude of St. Francis Hospital, Maryville, "Reception and Discharge of the Patient," which made the appeal that the patient's best interests never be sacrificed to an over-scientific system.

Beginning with the principle that business and business methods have their own distinct place and claims in every enterprise where material things are to be handled in an efficient and successful manner, that the very administration of the church itself is not without its economic and financial phases, and indeed that the proper handling of these special phases contributes much to the fuller attainment of its supernatural objectives, Miss A. F. Van Iseghem of the Commerce and Finance Department of St. Louis University, presented a paper on "The Necessity of Adequate Accounting Records in Hospitals,"* giving chief consideration to the principles which govern hospital accounting.

Round Table Discussions

The second morning was given over to round table conferences, with the reading of brief papers followed by general discussions; to the election of officers; and to a meeting of the executive committee.

Subjects of the round table included superintendency of hospitals, operating room service, day and night supervisors, dietetics, the laboratory, and x-ray technicians.

In the afternoon, at the invitation of Rev. Father Kemper, S. J., of St. Stanislaus Seminary, Florissant, Mo., the Sisters visited and were entertained by the members of the seminary.

Sister Giles presided at the Thursday morning ses-

*Published in this issue. Other conference papers will appear in later numbers.

ST. ANTHONY'S HOSPITAL, ST. LOUIS, WHERE THE CONFERENCE WAS HELD.
1—Chapel. 2—Exterior of St. Anthony's Hospital. 3—St. Clara's Room. 4—Private Room. 5—Sewing Room. 6—Grotto at Novitiate. 7—Sterilizing Room. 8—Kitchen. 9—Examining Room. 10, 11—Operating Rooms. 12—Diet Kitchen.

sion, when the conference listened to a paper on "The Maternity Department in a Sisters' Hospital," by Miss M. Moran, R. N., of St. Joseph's Hospital, Kansas City, Mo. Miss Moran gave in detail the routine of the maternity department, appending to the scientific requirements, suggestions for its superior service. A discussion of the paper advised that student nurses be encouraged and instructed to meet any obstacles attendant upon obstetrical service in private homes of the city and country, in order that they may be equal to the responsibilities of a graduate nurse.

The important subject of hospital pediatrics was assigned to Sister Mary de Paul of St. Mary's Hospital, Kansas City, who centered her paper, "The Need for a Children's Department in a General Hospital," about the idea that "every modern general hospital owes it to the community to conduct a well regulated department for children, where the sick child will receive the same scientific care that is given to surgical patients." The paper was supplemented by informal remarks, in which Sister Mary Charles of St. Joseph's Hospital, Boonville, pointed out the need in Missouri for a Catholic hospital which will offer student nurses affiliation in pediatrics or contagion, and inquired whether some large community would not take up such work in the state.

With due attention to its scientific ministrations, Sister M. Gabriel of St. John's Dispensary, St. Louis, reached the heart and soul of dispensary service in a practical paper on "The Out-patient Department," rich in its own opportunities for service to men's souls and bodies. Commenting on this subject, Sister M. Sylvester of St. Mary's Hospital, St Louis, took exception to the expressed hope that the dispensary might eventually develop into a community center caring for the middle classes as well as for the poor. Sister Sylvester urged, on the contrary, that those persons able to pay a moderate price for dispensary service, do so, to prevent an imposition upon the service, and to forestall discouragement on the part of young medical men whose practice might largely be among these patients of moderate means.

Sister Mary Delphine of St. Mary's Infirmary, St. Louis, contributed to the closing day's program with a paper on the "Problems of the Hospital Pharmacist," in which she advocated a central location for the pharmacy; complete equipment necessary to efficient work; suitable provisions for the storing of perishable drugs and chemicals; a qualified, competent pharmacist; accessibility to pharmaceutical journals; the purchase of supplies from only the most reliable concerns; and a practical course for student nurses, in the pharmacy proper.

"The Relationship Between the Intern and the Hospital," as set forth in a paper by Brother Frumentius Horn, Rector of the Alexian Brothers' Hospital of St. Louis, recognized the delicacy of the intern's position in the hospital, which is not definitely a part of the executive, administrative, or helping bodies of the institution. Gracious appreciation of his conscientious and valuable service, and tactful instruction of his shortcomings were offered as possible means of diverting misunderstandings.

THREE STATE CONFERENCES IN NOVEMBER

November has been chosen for three state conferences of the Catholic Hospital Association, representing in all some eighty-five Catholic hospitals.

The sectional meetings are becoming more and more an influence in the life of the international body, in effecting through local activities the problems peculiar to each group, as well as the recommendations resulting by mutual consent from the international meetings held yearly.

Subjects of primary concern to the Catholic hospital working toward high achievements in the care of body and soul will be presented in carefully prepared papers, and discussed from various angles at the coming state meetings.

Ohio, including between twenty-five and thirty Catholic hospitals, will convene the 3rd and 4th of November at St. Vincent's Hospital in Toledo. Sister Rose Alexius of Good Samaritan Hospital in Cincinnati is the presiding officer.

It is a coincidence that the Southern States Conference, embracing the twenty-nine Catholic hospitals of Arkansas, Louisiana, and Texas; and the Iowa Conference, representing a similar number of institutions, have settled upon the same dates, November 12th and 13th.

The Southern States will assemble at Little Rock, Arkansas, as guests of St. Vincent's Infirmary; the Iowa hospitals at Mercy Hospital in Davenport. Mother Mary Cephas of Mercy Hospital, Cedar Rapids, Iowa, is president of the Iowa group, and Sister M. Magdalene, St. Joseph's Infirmary, Paris, Tex., of the Southern, which has not met since its 1922 conference in San Antonio.

Committee Reports Presented at the C. H. A. Conferences at Spring Bank

(Continued from the October issue)

Sister M. Jeannette, S. C. A., of St. Agnes Hospital, Fond du Lac, Wisconsin, chairman of the laboratory Committee, which issued an extensive questionnaire on the subject of laboratory procedure, was assisted by Sister M. Henrietta, St. Mary's Hospital, Kansas City, Mo.; Sister M. Virginia, Holy Family Hospital, Manitowoc, Wis.; Sister M. St. Jules, Misericordia Hospital, New York City; Sister M. Joan of Arc, Mercy Hospital, Baltimore; Sister M. Carmel, Mercy Hospital, Pittsburgh; Sister M. Francis, St. Mary's Infirmary, St. Louis, Mo.; Sister M. Katherine, St. Anthony's Hospital, Denver, Colo.; Sister M. Pasqualina, St. Joseph's Hospital, Omaha, Nebr.; and Sister M. Gerald, Mercy Hospital, Chicago.

The purpose of the questionnaire was to ascertain, as far as possible, the

Personnel
General routine
Special routine, and
Methods of finance of the Catholic hospital laboratories.

109 questionnaires were answered.
4 hospitals acknowledged receipt of questionnaire but have no definite working laboratory as yet.

Personnel

83 pathologists are employed in these 109 laboratories, of which
19 are full time employees. Of these
13 work in the pathological laboratory only, and
6 divide their services between two departments.
12 pathologists are employed for half time, and work in the pathological laboratory only, while in the hospital
52 pathologists are employed for less than half time, and work in the pathological laboratory only.

Some of the pathologists divide their services between hospitals, private practice, or commercial laboratories.

5 are employed in two hospitals
7 render part service in three hospitals
1 renders service in all the hospitals of his city
32 are likewise practicing physicians, and
28 conduct commercial laboratories in the city.

Two of the above hospitals sent out all of the laboratory work to outside pathologists.

103 Sister technicians are employed in these hospitals, of whom
67 are full-time clinical laboratory workers
21 are employed in two departments, and
6 are employed in three departments (in small hospitals).

73 lay technicians are employed in these hospitals, of whom
67 are full-time clinical laboratory workers
5 are employed in two departments
1 is employed in more than two departments.

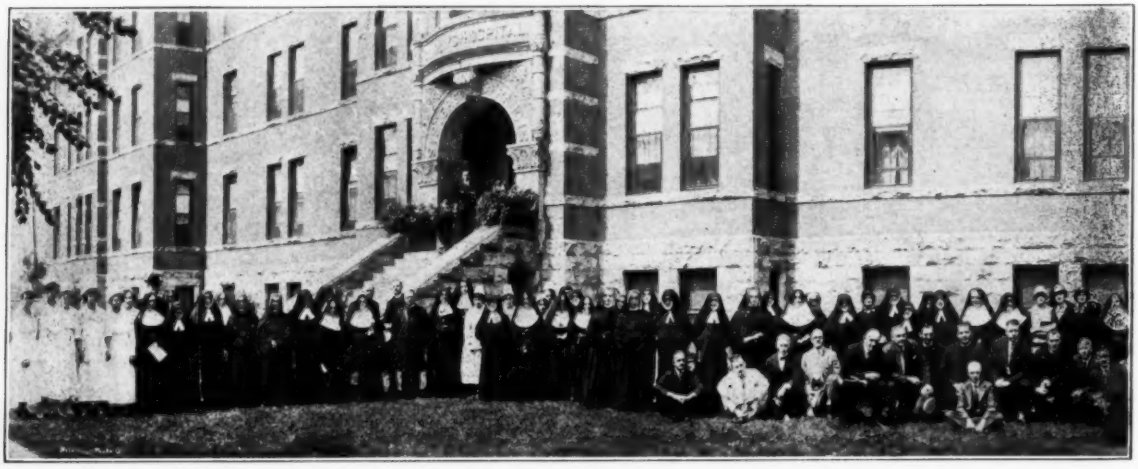
Besides the above, there are
14 pupil nurses and
5 interns.

In the 54 hospitals answering the individual question the highest average number of tests done per patient was 15.4; the lowest was 0.8; and the average number of tests done per patient was 2.7.

General Routine

49 hospitals have a minimum of routine urinalysis
33 include tonsil, obstetrical and accident cases in this routine

DELEGATES TO THE CALIFORNIA, ARIZONA, NEVADA STATES CONFERENCE, SEPT. 3 AND 4, 1924.



FOURTH ANNUAL MEETING—THE MOUNTAIN STATES CONFERENCE OF THE CATHOLIC HOSPITAL ASSOCIATION.

3 include tonsil and accident cases
2 include obstetrical cases
1 includes tonsil cases
1 includes accident cases
9 do not include tonsil, obstetrical or accident cases.

38 hospitals have a minimum of routine urinalysis and white blood count
12 include tonsil, obstetrical and accident cases
2 include tonsil and accident cases
2 include obstetrical cases
10 do not include tonsil, obstetrical or accident cases.

4 hospitals have a routine of urinalysis and complete blood count
2 include tonsil, obstetrical and accident cases
2 do not include these cases.

1 hospital has a minimum routine of urinalysis, white blood count and hemoglobin on all surgical cases; and in addition, a red blood count on all medical cases.

1 hospital has a minimum routine urinalysis and sputum examination including all cases.

1 hospital has a routine of urinalysis, white blood count and Wassermann, including all cases.

1 hospital has a routine of urinalysis and Wassermann including all cases.

1 hospital has a routine of urinalysis, white and differential blood counts including all cases.

2 hospitals have a routine of urinalysis, white and red blood counts including all cases.

5 hospitals have a routine of urinalysis, white blood count and hemoglobin estimation
2 include tonsil, obstetrical and accident cases
2 include obstetrical and accident cases
1 does not include tonsil, obstetrical or accident cases.

4 hospitals did not give a definite answer to this question.

70 hospitals repeat urine and blood tests when patient enters hospital, even though tests may have been done in the doctor's office or clinic

32 hospitals do not repeat routine tests if same were done in the doctor's office or clinic. Of these
4 have standing regulations for obtaining the reports from the doctor's office for the hospital record files. The other hospitals do not repeat tests, nor secure records of same. Some of the answers were somewhat indefinite on this question.

Tissue examination:

77 of the 109 hospitals have a regulation for routine gross examination by pathologist, of all tissues

57 hospitals have a routine microscopical examination of all tissues

31 hospitals have no regulation for routine tissue examination by pathologist, either gross or microscopical. In these institutions the tissues are sent to the laboratory for examination only when requested by the surgeon or physician.

56 hospitals have a regulation for routine gross examination in the laboratory, of all tonsils removed

35 hospitals have a microscopical examination of all tonsils removed.

72 hospitals have a routine gross examination by pathologist, of all appendices removed

52 hospitals have a routine microscopical examination of all appendices removed.

41 hospitals keep all gross tissue for some time after operation
9 hospitals keep all gross tissues permanently
1 hospital keeps all gross tissue for ten years
1 keeps gross tissue for four years
5 keep them for two years
9 keep them for one year
5 keep them for six months
1 hospital keeps them for three months
1 keeps them for two months
3 keep them for one month
4 keep them for six weeks
1 keeps them for two weeks
1 keeps them for forty-eight hours
2 keep all tissues until diagnosed
2 keep tissues when requested by physician
3 are unable to tell how long gross tissues are kept

68 hospitals do not keep the gross tissues after the operation.

Wassermann test is routinely done in hospitals as follows:
1 hospital does a routine Wassermann on all patients
7 hospitals have routine Wassermann test on all ward patients
6 hospitals on all obstetrical cases
2 on all diabetics
1 on colored male patients
1 on all medical cases
1 on all fracture cases
1 on accident cases
1 on all anemia patients
1 on service league patients.

53 of the 109 hospitals have a routine culture made of all questionable local infections.

35 hospitals have routine blood cultures of all septic, or possibly septicemia cases.

Special Routine

Tonsil cases:
62 hospitals have a routine coagulation time on all tonsil cases

Uncomplicated obstetrical:
5 hospitals have routine Wassermann test
1 hospital has routine microscopical examination of placenta
1 hospital has routine examination of vaginal smears.

Eclamptic cases:
7 hospitals have routine blood chemistry as seems to be called for by the case
5 have routine blood urea
5 have routine Wassermann
5 have routine quantative urine albumin
2 have routine kidney functional test
2 have routine blood non-protein nitrogen.

Diabetes:
38 have routine blood sugar
23 have routine urine sugar determinations
3 do Wassermann test routinely
2 have routine CO_2 combining power of blood plasma.

Hypertension cases:
3 hospitals have routine daily urinalysis

HELD AT ST. ANTHONY'S HOSPITAL, DENVER, COLORADO, SEPTEMBER 8 AND 9, 1924.

6 have routine blood chemistry as seems necessary for the individual case
2 routine blood urea
4 routine Wassermann
2 routine kidney functional test
3 routine repeated blood pressure.

Nephritics:
4 have routine daily urinalysis
6 routine blood urea
10 blood chemistry as seems called for by the case
3 routine blood non-protein nitrogen
3 routine kidney functional test
3 routine Wassermann

Uremic poisoning:
2 routine daily urinalysis
7 routine blood urea
10 routine blood chemistry as called for by case
3 routine blood non-protein nitrogen
3 routine blood creatinin
3 kidney functional test if possible
3 routine Wassermann.

Prostate, operative cases:
7 routine blood urea
1 hospital routine non-protein nitrogen
5 hospitals routine kidney functional test
3 routine blood creatinin
1 routine catheterized urine examination.

Gall-bladder:
6 routine coagulation time
1 routine Lyon duodenal drainage
2 blood chemistry as called for by case
1 catheterized urine examination.

Jaundice:
8 hospitals have routine coagulation time
2 have routine blood fragility
1 routine Lyon duodenal drainage
1 bile test (did not state whether urine or serum bile)
1 complete blood count
1 differential blood count
2 routine Wassermann.

Anemia:
10 routine complete blood count, taken weekly or twice weekly
1 test for urobilin.

Goiter:
9 hospitals have routine determination of basal metabolism
2 have routine coagulation time
1 routine Wassermann
1 routine complete blood count.

46 of the hospitals answering the questionnaire have facilities for performing basal metabolism tests
14 hospitals use the Jones' metabolimeter
7 hospitals use the Sanborn Benedict apparatus
7 use Sanborn Handy
3 use Benedict's apparatus
1 uses Benedict Collin's
1 uses Warren Collin's
2 use the McKesson metabolar
3 use the Tissot method with Haldane gasometer
2 use gas analyzer
6 did not state type of apparatus in use.

Finance

108 of the hospital laboratories listed are self-maintaining
1 hospital laboratory is endowed.

54 or 50% of the hospital laboratories have a flat fee, the lowest fee being 50 cents, the highest $10; and the average $4.
13 of the laboratories have a flat fee covering all of the laboratory work done
21 have a flat fee covering the routine work only (urine and blood counts only)
7 have a flat fee covering all laboratory work except tissues and Wassermanns
5 have a flat fee covering all of the laboratory work except blood chemistry and blood cultures
4 have a flat fee covering all the laboratory work done except basal metabolism, blood chemistry and Wassermanns
2 have a flat fee covering all but blood cultures
1 has a flat fee covering all but blood cultures and Wassermanns
1 has a flat fee covering all the work done except tissues.

4 of the hospitals have a day charge on bed; the average being 10% of the room charge.

50 or 46% of the hospital laboratories have an individual fee table, and charge according to the amount of laboratory work done, all making some reduction when much work is done for an individual patient, especially when the patient is poor.

19 of the 54 hospitals charging a flat fee for laboratory work observe that the flat fee system results in repeated number of apparently unnecessary or indiscriminately called for tests.

18 of the 54 hospital laboratories charging a flat fee feel that the laboratory is not misused as a result of the flat fee system.

As a matter of uniformity the hospital laboratories were requested to enumerate their laboratory expenses according to a given outline, and to state whether or not their laboratories were self-maintaining when expenses were enumerated according to the outline. (Figures were not desired in the questionnaire; the outline of laboratory expense items was given only as a guide to provide a uniform basis for estimation of the laboratory expenses.)

All told, 26 hospital laboratories (roughly 24%) supposed to be self-maintaining state that they do not meet their expenses as enumerated in minimum terms in the questionnaire. The deficits range from $400 to $5,500. The largest number of deficits and the largest deficits are in hospitals charging a whole flat fee.

Of the forty price lists enclosed with the questionnaire the charges for the more common tests range as follows:

Daily urinalysis for diabetic or nephritic patients: $5.00 two.

Urinalysis:
$0.50 one
1.00 twenty-nine
1.50 three
2.00 four
1.00 for first; .50 for second; and if repeated .10 each three.

Quantative chemical urine tests, as sugar, albumin, urea, creatinin, chlorides, etc.:
$0.50 two
1.00 eleven
1.50 eight
2.00 eight
5.00 one

Single blood count, as white, red, or differential blood count:
1.00 thirty-one
1.50 seven
2.00 six

Coagulation time:
$1.00 eight

Complete blood count:
$2.00 three
2.50 two
3.00 ten
3.50 one
4.50 one
5.00 twelve
5.50 one
10.00 one
5.00 to $10.00 one

Blood chemistry, complete:
$ 5.00 one
10.00 five
12.00 one
15.00 two

Blood Sugar:
$5.00 nine
3.00 one
2.50 one
2.00 two

CO_2 combining power of plasma:
$ 3.00 one
5.00 three
10.00 one

Von Pirquet:
$ 2.00 six

Blood cultures:
$2.00 one
3.00 two
5.00 fourteen

Wassermanns:
$ 3.00 one
5.00 twenty-one
10.00 one
1.00 for taking only, and mailing—three

Spinal fluid:
$ 2.00 four
3.00 three
5.00 five
10.00 two
15.00 one
3.00 to 5.00 one
25.00 one

Hemoglobin:
$ 1.00 nine
1.50 three

Blood smears for malaria:
$ 1.50 three
2.00 six

Blood fragility:
$ 2.00 one
5.00 one

Mosenthal test:
$ 2.00 two

Blood chemistry, one test only:
$ 2.00 three
2.50 one
3.00 five
5.00 fourteen
2.00 when repeated, one

Sugar tolerance test:
$ 5.00 six

Blood uric acid:
$ 3.00 one
10.00 one

Blood grouping for transfusion:
$ 1.00 six
2.00 four
3.00 four
5.00 two
10.00 one

Widals:
$ 1.00 two
1.50 one
2.00 fourteen
3.00 four

Kidney functional test:
$ 1.00 one
2.00 eight
3.00 three
5.00 three
10.00 one

T. B. smear of sputum or urine:
$ 1.00 fifteen
2.00 twelve
2.50 one
3.00 two
2.00 antiformin method—two
2.00 T. B. and elastic fibers—two

Pus, stain and smears:
$ 0.50 one
1.00 fourteen
2.00 four

Miscellaneous cultures:
$ 1.00 ten
1.50 two
2.00 eight
2.50 two
3.00 three
5.00 one
1.00 to $ 2.00 one
3.00 to 5.00 two
3.00 to 10.00 one

Tissue microscopy:
$ 3.00 four
4.00 one
5.00 nineteen
1.00 to $ 4.00 one
5.00 to 10.00 one
10.00 frozen section, one

Gastric analysis:
$ 1.00 one
2.00 ten
2.50 two
3.00 seven
5.00 four
10.00 one
2.00 to $5.00 one
3.00 for fractional, one
5.00 for fractional, one

Milk analysis:
$ 1.00 three
2.00 four
3.00 four
2.00 to $3.00 one
2.00 to 5.00 two

Water analysis:
$ 5.00 one

Pneumococcus typing:
$ 5.00 two

Duodenal drainage:
$ 5.00 three

Complement fixation test:
$ 5.00 two

Dark field microscopy, for spirochete:
$ 2.00 three
3.00 one

Exudates and transudates:
$ 1.00 three
2.00 four
3.00 two
5.00 two

Autogenous vaccine:
$ 5.00 eleven
10.00 two
5.00 to $10.00 eleven

Basal metabolism:
$ 5.00 five
10.00 six
15.00 one

Stool analysis:
$ 1.00 twelve
1.50 two
2.00 three
2.50 three
3.00 five
5.00 one
1.00 to $ 3.00 one
1.00 to 5.00 one
5.00 to 10.00 one
2.00 for parasites only, two
5.00 for parasites only, one

Animal inoculation:
$ 5.00 eight
10.00 one

Colloidal gold test:
$ 5.00 three

Questions Sent to Deans

Two copies of a questionnaire were sent to each dean of the 59 full-course, class A medical schools in the United States, and to four schools in Canada, asking for the minimum laboratory tests considered necessary for diagnosis or prognosis, on patients entering a hospital for treatment and care, upon whom the following tentative diagnosis have been made.

Thirty-six institutions (57.14%) answered the questionnaire. Fifty-two answers were received. Some of these were answered by one person, while several of them were answered by a group of persons together.

Regarding hospital patients:

All were unanimous in stating that a urinalysis should be done upon all patients.

All were unanimous in stating that a white blood count should be done routinely upon all patients except tonsil cases.

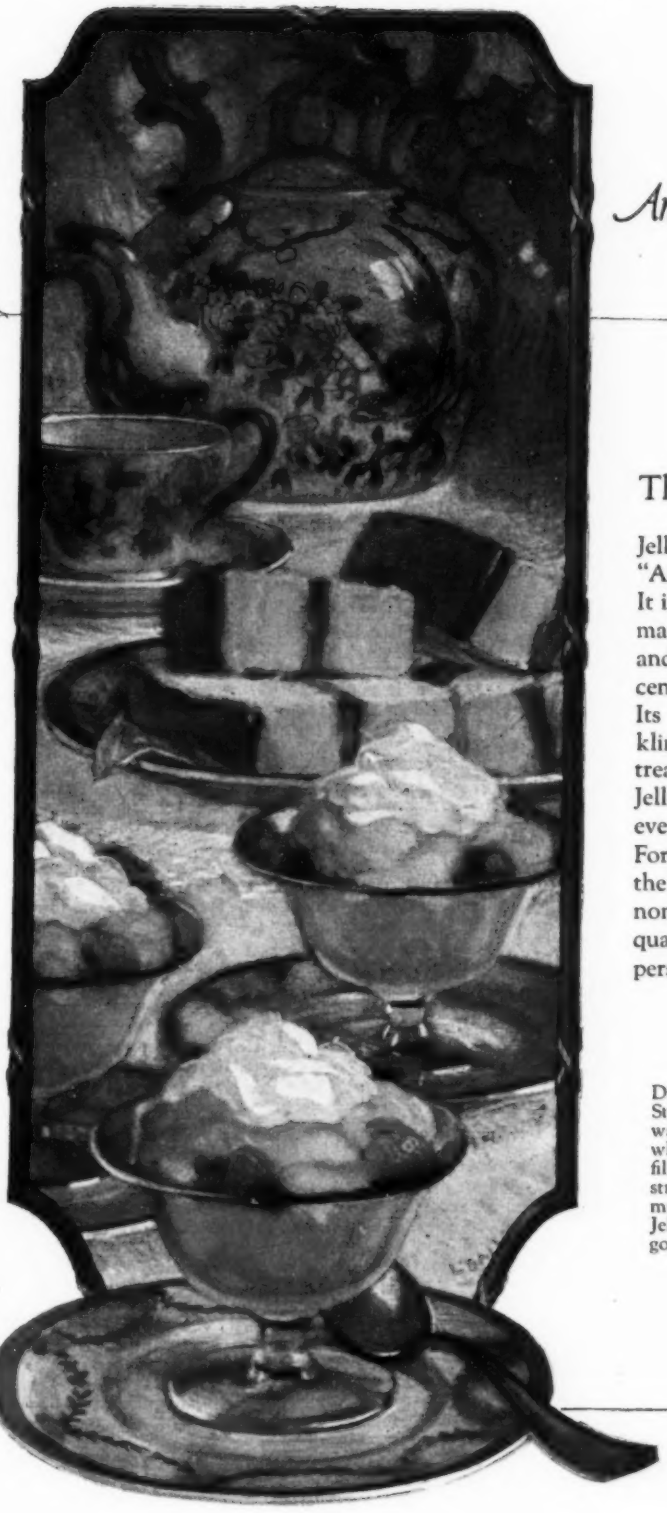
Four considered that a Wassermann should be done upon all patients when time permitted.

Three, that every case should have a hemoglobin estimation.

Two, that every case should have a blood coagulation time.

Two emphasized tissue microscopy of all tissues removed.

1. Uncomplicated obstetrical. Answered by 46 questionnaires.
   - 46 frequent urinalysis, with occasional 24 hr. specimen
   - 46 blood pressure
   - 20 white blood count
   - 14 Wassermann upon all obstetrical cases
   - 6 complete blood count
   - 3 blood culture, if febrile
   - 1 measurement of renal output.
2. Eclamptic cases; 46 answers received.
   - 46 frequent urinalysis, noting amount voided
   - 46 frequent blood pressure
   - 46 white blood count as frequently as called for by case
   - 22 frequent 24 hr. urine for general routine, acetone and diacetic acid, and, if these are present, determination of ammonia output
   - 16 Wassermann
   - 13 necessary blood chemistry
   - 11 blood urea
   - 7 kidney functional test
   - 5 blood non-protein nitrogen
   - 4 CO_2 combining power of plasma, or CO_2 of alveolar air
   - 4 blood sugar
   - 4 blood creatinin
   - 2 blood uric acid
   - 1 phenoltetrachlorphthalein test.
3. Diabetes; 47 answers received.
   - 47 daily urinalysis, either all of single specimens for sugar; or 24 hr. spec. for Sp. Gr., quantity sugar, acetone, and diacetic acid
   - 47 initial blood sugar, and frequent fasting blood sugar
   - 20 blood counts, according to condition of patient
   - 10 CO_2 combining power of plasma, in all cases
   - 6 CO_2 of blood plasma only when acidosis is indicated by urine or breath of patient
   - 6 Wassermann
   - 4 blood pressure
   - 2 sugar curve in certain cases
   - 1 alkali reserve of blood plasma
   - 1 blood fats in coma
   - 1 renal functional test.
4. Nephritis, with hypertension; 49 answers received.
5. Nephritis, without hypertension; 49 answers received.
   - 49 frequent urinalysis
   - 49 blood chemical tests (blood urea or blood non-protein nitrogen on all cases; and creatinin, chlorides, and uric-acid as demanded by the case)



JELL-O

America's most famous dessert

The Food Value of Jell-O

Jell-O is perhaps best known as "America's most famous dessert." It is a light but nourishing sweet—made from purest gelatin, cane sugar and fruit juices. For the convalescent, or invalid, it is unsurpassed. Its tempting flavor and clear, sparkling color provides a delightful treat for the "finicky" appetite. Jell-O, of course, is always and everywhere a favorite with children. For hospitals and other institutions, the large size package is most economical, its contents making four quarts, enough for forty to fifty persons.

BERRY FRAPPE

Dissolve a package of Raspberry or Strawberry Jell-O in a pint of boiling water. When cold and still liquid whip and pile into frappe glasses partly filled with crushed fresh raspberries or strawberries. A cup of whipped cream may be folded into the whipped Jell-O if desired. Canned berries are good when fresh fruit is out of season.

© 1926 by The Jell-O Company, Inc.

THE JELL-O COMPANY, INC., LEROY, N. Y.—BRIDGEBURG, ONTARIO, CANADA

49 frequent blood pressure
47 phthalein kidney functional test
11 fractional two hr. urine according to Doctor Christian
6 Wassermann
5 Mosenthal functional test meal
3 CO_2 of blood plasma
1 blood sugar.

6. Uremic poisoning; 48 answers received.
48 same required as for nephritis
45 stressed, besides blood urea or non-protein nitrogen, blood creatinin, and urine for diacetic acid and acetone, and, if these are present, CO_2 of plasma
8 blood chlorides
5 blood uric-acid
3 blood sugar.

7. Coma, cause unknown; 47 answers received.
47 blood chemistry, chiefly blood sugar and blood urea or blood non-protein nitrogen
43 spinal puncture
30 quantity of urine as far as possible, and kidney functional test if possible
25 test for acidosis as indicated by urine and CO_2 of plasma
2 exudate culture, if exudate
1 blood culture, if febrile
1 blood smear for malarial parasites
1 tests for poison, if in any way suspicious
1 test for carbon monoxide, if suspicious of gassing.

8. Gout; 42 answers received.
38 blood uric acid, besides gen. routine blood and urine
19 blood urea
10 24 hr. urine
10 Wassermann
10 blood pressure
5 non-protein nitrogen
4 kidney functional test
2 microscopy of tophi.

9. Septic cases; 46 answers received.
46 repeated blood counts, especially white and differential
45 blood culture
18 focal culture, if possible
8 blood chemistry, as indicated by case
6 Wassermann
4 blood pressure
1 spinal fluid
1 search for malarial parasites.

10. Anemias; 46 answers received.
46 complete blood counts, repeated as necessary
12 stool for blood and animal parasites
10 Wassermann
9 gastric analysis
5 fragility of red blood cells
5 coagulation time
5 platelet count
5 urobilin
4 culture, if septic
3 bleeding time
1 search for reticulated cells
1 search for malarial parasites
1 blood cholesterol

11. Tonsil cases, operative; 47 answers received.
47 urinalysis
26 coagulation time
15 white blood count
5 Wassermann
4 hemoglobin
2 bleeding time
2 tissue microscopy after removal

12. Gall-bladder; 49 answers received.
49 white blood count and urinalysis
27 complete blood count
25 coagulation time
14 Wassermann
8 stool analysis
6 duodenal drainage
5 gastric analysis
4 bleeding time
3 serum color
2 renal functional
1 blood sugar
1 blood cholesterol
1 phenoltetrachloride test

13. Goiter; 49 answers received.
49 white blood count and urinalysis
48 basal metabolism rate
17 complete blood count
17 blood chemistry as necessary
8 Wassermann
4 coagulation time
2 blood sugar
1 blood creatinin
1 CO_2 of blood plasma.

14. Prostate, operative cases; 49 answers received.
49 white blood count and urinalysis
35 kidney functional test
24 blood urea
11 blood chemistry as necessary
10 blood non-protein nitrogen
9 Wassermann
3 blood creatinin
2 CO_2 of blood plasma
1 quantity of urine
1 catheterized urine
1 retention of urine
1 urine culture
1 blood uric-acid
1 blood sugar.

15. Acute appendicitis; 50 answers received.
50 white blood count and urinalysis
25 differential count
8 complete blood count
5 Wassermann, if time permits
2 hemoglobin.

16. Chronic appendicitis; 50 answers received.
50 white blood count and urinalysis
25 differential count
10 complete blood count
5 Wassermann
4 stool analysis
3 gastric analysis
2 hemoglobin
10 x-ray of gastro-intestinal tract.

NURSES GO TO INDIA

Four American nurses, comprising the first unit of Catholic lay women to enter the foreign mission fields, sailed from New York the early part of October, bound for Dacca, Bengal, India. They are Miss Angela Steinmeyer, Mullanphy Hospital, St. Louis, Mo.; Miss Sophia Hoerner, Hospital for the Women of Maryland, Baltimore; Miss Adele Steinmetz, the Jewish Hospital of St. Louis, St. Louis, Mo.; and Miss Julia Super, St. Mary's Infirmary, Cairo, Ill.

The Dacca missions are maintained by the Fathers of Holy Cross, who have just completed a new foreign mission seminary at Brookland, D. C. A week's retreat was given for the nurses at the new seminary. During their stay in Washington the medical unit stopped at Dumbarton Academy, conducted by the Sisters of Holy Cross.

A great public ovation was given the four young women upon their first group appearance September 23rd at the dedication of the seminary. The Most Rev. M. Curley, D. D., Archbishop of Baltimore, officiated at the dedication, and the Rt. Rev. Philip R. McDevitt, D. D., Bishop of Harrisburg, delivered the address.

September 24th the Mathis Club of Washington gave an informal reception in the refectory of the new house, in honor of the nurses. A large number of out-of-town friends of the Holy Cross missionaries were guests.

EXAMINATION FOR NURSES

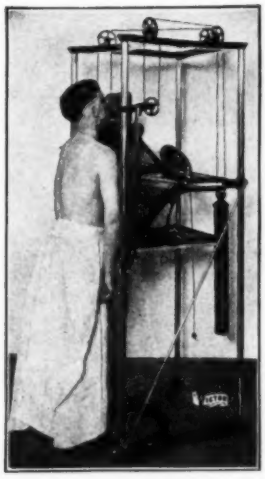
The United States Civil Service Commission announces an open competitive examination for graduate nurses interested in visiting duty.

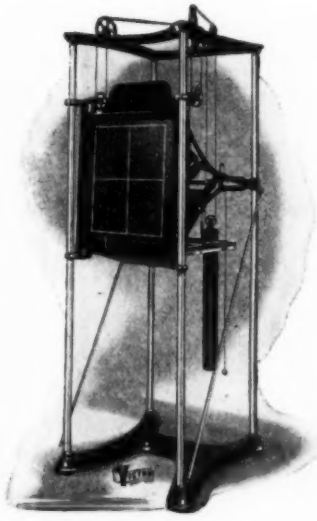
Applications will be rated as received until December 30th. The examination is to fill vacancies in the United States Veterans' Bureau and in the Indian and public health services.

The entrance salary in the Indian service, both for hospital and visiting duty, is $1,500 a year. Furnished quarters, heat, and light are allowed appointees free of cost.

The entrance salary in the Veterans' Bureau hospital service is $1,680 a year; and in the public health service, $1,020 a year, with quarters, subsistence, and laundry free of cost.

Full information and application blanks may be obtained from the United States Civil Service Commission, Washington, D. C., or the secretary of the Board of U. S. Civil-service Examiners at the post-office or custom-house in any city.





Victor Balanced Cassette Changer

This New Design a Realization of the Ultimate in Units for Stereo-Roentgenography of the Chest

For stereo-roentgenograms with patient standing or sitting—equally convenient in either position.

No jar or vibration when changing position of the cassettes.

Speed is selective—one setting suffices for consistent duplication of any selected speed.

Noiseless operation.

Operates from either side, therefore conforms to any room arrangement.

A time saver; cassettes quickly inserted or removed.

Simple to operate—no concealed mechanism to cause confusion.

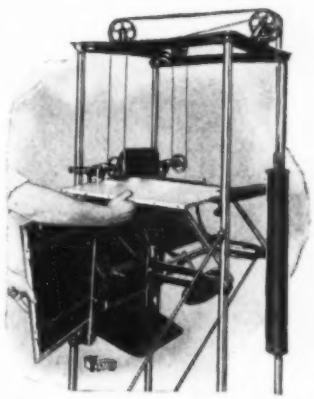
Compact; economizes space.

Durable—no wearing out of parts to affect consistent operation.

Adaptable to most exacting technique.

Practicable from every standpoint.

Write for detailed description



The Cassettes are accessible for quick insertion and removal without disturbing the patient. Apparatus is so designed that on installation operator may select the side he is to work from.

VICTOR X-RAY CORPORATION, 236 South Robey Street, Chicago, Ill.

Sales Offices and Service Stations in All Principal Cities

VICTOR

NURSES OF ST. JOSEPH'S HOSPITAL, HAMILTON, ONT., CANADA.

SIMPLIFICATION OF HOSPITAL BEDS

The Final Recommendations of the Bureau of Standards

On October first, the United States Department of Commerce, through its Division of Simplified Practice, issued its final findings and recommendations for the simplification of hospital beds. In the future, the United States Bureau of Standards will recommend the following three sizes for hospital and institutional beds:

For general hospital use: (a) Length, inside distance between head and foot posts, 78 inches; (b) width, of end angles of springs, 36 inches; (c) height from floor to top of springs, inclusive of casters, 27 inches.

For institutional use: In cases calling for a narrower bed, the recommended width is 32 inches, with dimensions a and b the same as above.

For private room use: In cases calling for a wider standard bed, the recommended width is 39 inches, with dimensions a and b the same as above.

CALIFORNIA SODALITIES MAKE EXTENSIVE PLANS

On Sunday, September 7, 1924, a meeting of the Nurses' Sodality of the Blessed Virgin was held at Mary's Help Hospital, San Francisco, California. The Sodality for the Nurses of Mary's Help Hospital School of Nursing was established December 8, 1914, and since that time there has been an annual reception of the student nurses into its membership.

This year on the first Sunday of September the meeting was followed by a joint meeting of the sodality officers, nurses from St. Mary's, St. Joseph's, and Mary's Help Hospitals, and the Catholic hospitals of San Francisco. Reverend E. F. Garesché, S. J., presided at the meeting and in an address pointed out to the nurse sodalists the opportunities for good which are daily theirs, and proposed means of making the most of their activities and opportunities for God's honor and glory. The Reverend Father suggested that the officers of the three sodalities have an informal reunion about three or four times a year, the meetings to be held at the local Catholic hospitals successively. At these meetings reports of the different sections should be read, experiences exchanged, ideas expressed, and suggestions made, and it would be interesting to note the amount of work done between the successive meetings, and accomplished by the end of the year.

In an address to the nurses Father Garesché, who is the General Spiritual Director of the International Catholic Guild of Nurses, said in part:

"I am going to have the members of the International Catholic Guild of Nurses prepare a book on 'Nursing Opportunities,' and I have listed here a few of the different fields in the nursing profession:

"School Nursing. "The Sister Nurse.
"Private Nursing. "Pediatric Nursing.
"The Nursing of Mental Cases.
"Obstetrical Nursing.
"The Nurse in Social Service Work.
"The Army Nurse.
"The Navy Nurse.
"Public Health Nursing.

"There is a whole career of nursing in the army. The head nurse in the army, e. g., in the tubercular sanitarium, has charge of a whole staff of nurses. Then there are navy nurses, nurses skilled in the care of mental cases, and nurses fitted for work in doctors' offices. All these fields manifest the importance of taking up your work for a *purpose*. Some nurses are well instructed, practical in their religious duties, and always show themselves to be Catholics. These are Catholic nurses with Catholic principles and devoted to their work; still others one can hardly find, and some never acknowledge that they are Catholic nurses. There are also a number of nurses who grow cold in their religion. If there is any person in the world who ought to keep up a special fervor in her Catholic life and work, it is the nurse.

Soul and Body of Nursing

"Nursing has a body and a soul. The body of nursing is the exterior of the work; the technical end of it. The soul of nursing is the interior intention of the nurse. One may be very weak religiously and may not care anything about God. She does not work for God or His Love, but because she is interested in her work. *Her* nursing has no soul.

"The other nurse administers to her patient because she loves God and offers all her work for His greater honor and glory. Each is excellent in technique, but the one has no soul in her work, and the other has the soul of Christ.

"To the one Christ can say, on the Day of Judgment:

"'Come ye blessed of my Father possess the Kingdom prepared for you from the foundation of the world, for I was sick and you visited me.'

"To the other God cannot say such a thing.

"Hence it is evidently important that every Catholic nurse be a *good* Catholic.

"There are about one hundred and fifty sodalities for nurses. Some have not been organized very well as yet. They meet once a week or so for prayers, but they have no active interest in the lives of the nurses.

"The real nurses' sodality is a well organized system by and for the nurses, holding the interest of each nurse whose aim it is to do all things for the greater glory of God. If she does things herself because she wants to do them for the love of our Lord, she is training herself for after-life. When people are pushed around and *told* to do things, they obey but do not learn personal initiative; the thing worth while doing should be done of one's own accord.

"Officers of the sodality should be very active and energetic. This will stimulate initiative. Student government and student initiative should succeed and it does succeed when organized through the sodality.

"I always recommend that there be at least four sections in the sodality, composed of groups of committees.

(Continued on Page 28a)

The
Engeln Mobile Diatherm

AN ADVANCED EQUIPMENT which embodies many very evident advantages for Office and Institutional work. The Engeln Mobile Type Diatherm is exceptionally attractive in appearance, quiet and smooth in operation and capable of continuous heavy-duty performance. Ask for details

THE ENGELN ELECTRIC CO.
X Ray and Physiotherapy Equipment
CLEVELAND OHIO

(Continued from Page 460)

"The committees cover four principal works which should be carried on in all schools by the nurses themselves.

Devotions

"1. *Devotional Section in Sodality.* This section has special charge of devotional exercises. Its members suggest acts of devotion for the nurses and encourage themselves and their fellow nurses to be devout. Some nurses diminish in piety and devotion when nursing because they do not make enough effort to be devout. This section puts up a bulletin in the nurses' home and from time to time the secretary writes down little suggestions for devotional exercises; for example, 'Tomorrow will be the Feast of the Blessed Virgin; all the nurses are requested to assist at mass and receive holy communion, and in the evening assemble for a short religious exercise; sing a hymn in honor of the Blessed Virgin, recite a poem, or anything devotional, to be carried out by the nurses themselves,' etc. If a nurse is about to take the state board examination, write on the bulletin, 'Miss ——— is preparing to take the state board examination; will all the nurses please pray for her success.'

"2. *Literary Section and Library.* Good reading, especially Catholic reading, is recommended. Our nurses ought to read more, so as to instruct themselves more and more in their Catholic religion. A nurse must be a good instructor. A Catholic nurse who is ignorant of her religion misses many opportunities. Nurses should never have to say 'I don't know,' in answer to questions concerning their religion. If they do not know what their religion is and means, what is the use of others, who are honestly desirous of knowing, asking them questions? It is too true that a great many Catholics do not know enough about their religion.

Good Literature

"Form a section of Catholic reading and have the members form a library; have the nurses themselves plan entertainments and from the proceeds establish a fund for the purchase of books, and thus begin a library. Each nurse should have two or three good books always on her table. Suppose you want to rest for a little while; if there are two or three really interesting books on your table you may pick one up and read it; but if they are in a bookcase in another part of the room, or another part of the building, you will hardly take the trouble to get it. It is the book at your elbow that you are going to read. I hope that when the Sister or nurse goes around to inspect the rooms she will see that a very good book or a few good books are on the table of each nurse and of every patient as well. The last thing people buy is a book, but we must get over that idea.

Mission Work

"3. *Section for the Work of the Missions.* Some nurses do not do enough for other people. Besides their professional work they should take an interest in outside needs, especially the missions. Start a *Self-denial Fund.* Do not spend all your money on yourself. From time to time when you feel like getting some little article you really do not need, make a self-denial act and do not buy it. Give the money to the mission, and in this way quite a nice sum will be accumulated.

"Missions are in need of all sorts of supplies. Some hospitals have no sterilizers or instruments or any facilities of this kind to perform operations. So the nurse in the hospital may often obtain permission of the Sister to collect such appliances to send to the needy missions.

"Adopt a hospital in a poor mission, write to them, request reports, and show your interest in them in the practical way suggested. There should be a committee occupied with this work of sending supplies to the missions. There is great opportunity in many parts of the western states to help these poor abandoned missions. There are many priests and Sisters in the country who are struggling along with insufficient means.

Sociability and Recreation

"Sociability among the nurses, and recreation, is a very important need. Sometimes they do not get enough recreation, and this lack interferes with their work a great deal. Entertainments and pleasant surprises should be planned, newcomers to the school should be accorded a hearty welcome. Interest others in the sodality and form a special committee which we may call the Sociability Section, to promote a kind and friendly spirit among the nurses—'By this shall all men know that you are my Disciples, if you have love one for another.' The truth is, nurses are sometimes unsociable. They become individualistic and self-centered. Not all of them, but some, have a tendency thereto. Therefore sociability is a desirable and necessary quality among the nurse sodalists.

Program Committee

"Make the meetings of the sodality as interesting as possible. Have a little program at the end of each meeting, which may include music, recitations, hymns, etc.

"Nurses may go to other places and attend meetings where they hold regular debates and practice parliamentary law, all of which is interesting, instructive, and affords them training.

Explains Guild

"The International Catholic Guild of Nurses was started a few months ago and nurses gathered from about twenty cities. We had a remarkable representation. There were not very many from the far West.

"The main body of the guild will be registered nurses. There will be an annual meeting and perhaps meetings will soon be held in the East and far West. No matter where the nurses may go we can reach them by letter and by the magazine, HOSPITAL PROGRESS. You will be very welcome to join this guild. Local committees will be established in all the large cities. Thus, in San Francisco a membership may be established to work locally but in cooperation with the California Guild.

"Each nurse should be loyal to the hospital and to the school in which she is studying and being trained, and from which she graduates. Loyal support of your school and hospital will be a great help to you and increase your personal efficiency.

"When I was a student, Archbishop Ryan, on the occasion of a visit, addressed the students. In the course of his remarks he said, 'You do not belong to one college, but to a world-wide college.' I never forgot that. The same thing can be said to you. In graduating from a Catholic hospital you graduate from the great system of Catholic hospitals. They all have the same standards, the same ideals, the same purpose. When you are loyal to your own hospital you are loyal to 725 Catholic hospitals. As graduates from a Catholic training school you are representatives of a world-wide institution. The Sisters of Charity are associated with this great hospital association. What a wonderful influence we can have if we are loyal to our profession, hospital, and school.

"I would impress upon you, in conclusion, that the real success of the sodality depends upon the nurses' and officers' doing as much as they can themselves. The real work should be done by the sodalists; then it will be a success.

"Now the four different sections suggested are as follows:

"*Devotional*—Activities in devotions.

"*Missions*—Work for the missions.

"*Literary*—Work toward securing better reading material and the establishment of a library and circulation of books.

"*Sociability*—Work toward promotion of cordiality and spirit of friendliness.

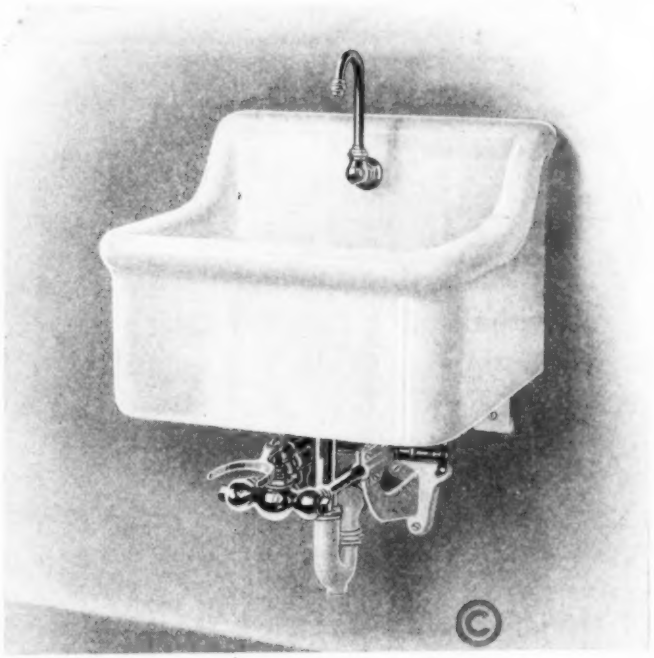
"The president of the sodality can suggest new sections.

"This is a very interesting and practical method of student government. We need a training of our nurses in initiative, personal activity and devotion, and this training will be supplied by our sodalities and by the sodalists themselves."

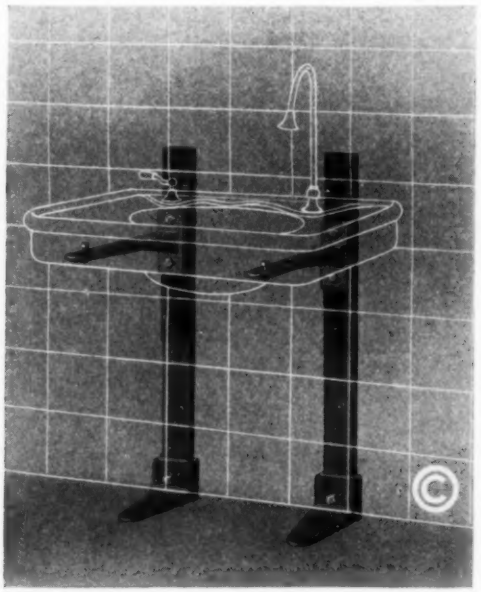
At the conclusion the Reverend Father gave his blessing to the assembled nurses.

The president of the Devotional Section of Mary's Help Hospital Sodality announced that the following day would be the Feast of the Nativity of the Blessed Virgin, and suggested that the nurses assist at mass and receive

(Continued on Page 32a)



A New Clow Product of Superior Design



This Surgeon's Scrub Sink (22″ x 26″ x 10″ deep), with 6″ integrant back, has been designed with a thorough understanding of surgical and hospital requirements.

It has knee-operating mixing valve with wall supports, and goose-neck supply spout. Besides valves for regulation of flow and shut-off, there is a valve regulating volume.

The sink is supported on the Clow Adjustable Floor Stand Hanger (shown here) which allows of convenient height, saves space, and makes for neatness and cleanliness.

JAMES B. CLOW & SONS
GENERAL OFFICE:
534 SOUTH FRANKLIN ST., CHICAGO
Sales Offices in Principal Cities.

CLOW

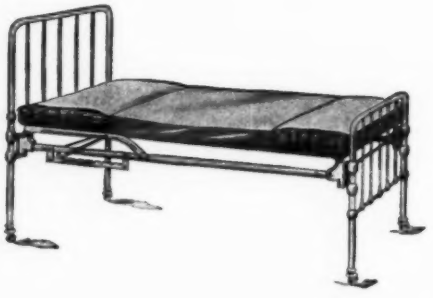
Curity
REG U.S. PAT. OFF.

"I never really know the concern I'm buying from until I take up a complaint with them. If they stand this acid test, I feel satisfied in continuing to do business with them."

This is without doubt the sentiment of many hospital buyers. It is a point, too, on which they need have no fears in their dealings with the makers of CURITY supplies. Let us quote from a recent statement on Our Attitude Toward Hospitals:

"We believe primarily that hospitals want and are entitled to confine their business relationships to firms whose ideals of service and standards of ethics are as high as their own."

In the matter of complaints and adjustments, it is our aim to settle any that arise amicably, speedily, and squarely.



Curity Rubber Sheeting

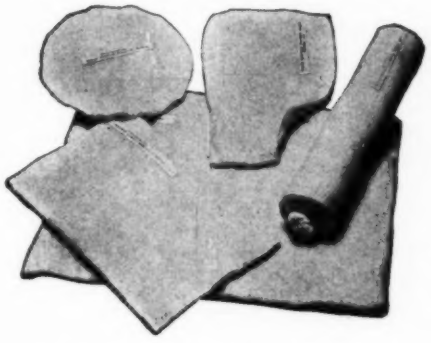
In its construction, Curity Rubber Sheeting is vulcanized in such a way that the sheeting becomes one fabric, not merely two layers of rubber with a layer of cloth between them. CURITY Sheeting gives positive protection and long service under constant use.

It comes in both white and maroon, in a variety of light and heavy weights.

LEWIS MANUFACTURING CO.
WALPOLE, MASS.

Cellucotton
—Reg. U. S. Pat. Off.—

"CELLUCOTTON FILLS THE DEMAND"



"All absorbent dressings are made with it,—almost no cotton is used for this purpose, and we find it *very* satisfactory"—Opinions written us by hospital superintendents.

Our Cellucotton Dressings Set contains many examples of the absorbent dressing. One of these, the Defecation Pad, was made by Miami Valley Hospital, Dayton, Ohio:

A double newspaper sheet, folded once to size about 12″ x 16″ so that there are four thicknesses of paper in all. Cut Cellucotton same size, about 3/8″ thick—the weight of the piece about 3¾ ounces. Cover the whole with a layer of Curity Absorbent Gauze, count 20 x 12, the edges overlapping enough to fold over back, and seal to the newspaper. Gummed paper is very satisfactory for this purpose, although any glue or paste can be used.

This sort of pad has been found very practical and economical to use in the Delivery Room. The Cellucotton is a very active absorbent, while the paper protects the bed.

The Cellucotton Dressings Set, containing in all about fifteen pieces, will be sent free of charge together with the Recipe Book, in which are directions for making the dressings.

These with a 100 pound trial order of Cellucotton will convince you of the economy and practical value of the perfect absorbent. Let us send them to you.

Exclusive Selling Agents

LEWIS MANUFACTURING CO.
WALPOLE, MASS.

A Small Steam Autoclave

In any laboratory, it is a great convenience to have a small autoclave for small quantity work or for use when it is not desired to heat up the large autoclave.

This autoclave will, in many instances, do all the work of a small laboratory.

It is made of cast aluminum in 10 quarts, 17 quarts and 25 quarts capacities.

It may be heated over any stove or on a tripod over Bunsen burners.

Safe—Efficient—Convenient

Prices and full particulars on request.

Since 1852 — E. H. Sargent & Co. — Laboratory Supplies

155-165 East Superior Street, CHICAGO, ILL.

(9243)

(Continued from Page 28a)

holy communion. The president of the Sociability Section announced that a birthday party in honor of our Blessed Mother's nativity would be given in the evening.

CALIFORNIA HOSPITAL STAFF CONSIDERS GOITER TREATMENT

September 10th St. Joseph's Hospital staff of San Francisco met to hear Dr. Wallace Terry speak on "The Modern Treatment of Goiter." Dr. A. S. Musante presided. The following is a resume of Doctor Terry's remarks:

There are four general types of goiter—the epithelial, colloid, adenomatous, and adolescent. In the colloid there is an excess of iodin and in the hyperplastic a deficiency. Infection is a factor in the latter, as well as in thyroiditis, and destruction may ensue and lead to myxedema. The most common on the Pacific Coast is the adenomatous which springs from "rests," and here only surgery can cure.

Adolescent goiter occurs in girls and boys of 10 to 22 years of age, and in California causes mild enlargement; in other places it results in larger goiters. These are cured spontaneously or with iodin. Causes are deficiency of iodin and sometimes infection. The swelling is uniform and there is no bruit or thrill, only slight tachycardia.

The colloid type is unusual here and iodin often cures. These goiters cause uniform enlargement, though the right lobe is larger usually, and they are smooth. Surgery is not needed as a rule. The hyperplastic or exophthalmic type is due to infection and probably lack of iodin; it is found everywhere. Over-activity, like that afforded this "jazzy" age, is a factor, and teeth and tonsils often supply infection. Here iodin is absent (used up). There is a high metabolic rate, enlargement, bruit of superior thyroids, thrill.

Most Common Type

The adenomatous are most common here and are irregular in shape. They may have heart and kidney changes, but no exophthalmos. Symptoms are often late (even after 14-15 years); in hyperplasia the early malignant type (carcinoma, sarcoma, and mixed) is not rare and can follow an adenomatous.

Treatment in olden days was the use of burned sponge, which we now know is rich in iodin. Certain geographical areas through glacial action have been ice-washed and iodin thus removed from the soil; the products of the latter are also deficient in iodin. Therefore iodin should be used as a prophylactic, by addition to drinking water or in some other way.

For adenoma early removal is best and even small masses should be enucleated; x-rays are contraindicated. For exophthalmic goiter x-rays are also a mistake; rational iodin therapy and surgery are best. Preoperative preparation includes gentleness and winning of the patient's confidence. Rest and an ice bag over the heart and neck help to quiet. Lugol's solution m.10 t.i.d. in chocolate malted milk is useful.

In about three weeks of forced feeding, eliminating red meats, brains, liver, tea, and other stimulants, patients will improve. Operate if pulse is better. Ligate superior thyroids if radical operation is not possible. Polar ligation, including sympathetic nerve and lymphatics, is better. Afterward there should follow a gain in weight, even 20 to 30 pounds.

Procedure

Nitrous oxide and oxygen is the best anaesthetic. Ethylene causes more bleeding and has a disagreeable odor, but may be improved. Kocher incision should follow folds of neck and go through platysma. Expose from thyroid cartilage to sternal notch. Retract muscles; seldom cut. Leave pieces near superior and inferior thyroids and a thin layer of the posterior portions, as well as the deep (pretracheal) fascia. In adenoma don't remove thyroid tissue. If patient goes bad while operating, stop and apply to wound, gauze soaked with acriflavine solution, and ice over this, and put patient back to bed for a few days. Substernal portion can be removed with a soup spoon having a rounded bowl. Before closing wash well with Ringer's solution. Use fine catgut to bring muscles together, and suture platysma separately for a

(Continued on Page 34a)

Ultra Violet Therapy
Produces an Erythema

On this reaction is based the whole structure of Ultra Violet Therapy, for without it, the proper therapeutic results cannot be accomplished.

Therapeutic Lamps which do not produce an erythema, or which have only a mild reaction are none other than Hyperaemia Lamps. They lack the powerful action of the short ultra violet rays.

The Hanovia Quartz Lamps, the Alpine Sun and Kromayer, are strongly bactericidal and biological by virtue of their erythematic reaction. They are recognized as the most intense producers of Ultra Violet Light, and for long life. This, combined with their cheapness in operation, and wide therapeutic scope, should be investigated.

"Ask Your Fellow Practitioner"

For literature and reprints: "REQUEST SET 34."

HANOVIA CHEMICAL & MFG. CO.

GENERAL OFFICE AND LABORATORY: NEWARK, N. J.

Branch Offices: New York Chicago San Francisco

"BURNERS AND ALL PARTS MANUFACTURED IN OUR OWN PLANT."

Look for the "Pequot" Shield on Sheets and Pillow Cases

PEQUOT SHEETS AND PILLOW CASES

REG. U.S. PAT. OFF.

Because Pequots are the standard specified by hospitals from Coast to Coast, a recommendation of other sheetings frequently heard is, "Just as good as Pequot"

For your protection and satisfaction insist on the "Pequot" label. Recognized for durability and appearance. They launder easily. On sale by most leading wholesale and retail dry goods stores. Purchase from your dealer or we will gladly advise you where you can buy.

Made by

NAUMKEAG STEAM COTTON COMPANY
Salem, Mass.

PARKER, WILDER & COMPANY, *Selling Agents,*
— Boston — New York —

(Continued from Page 32a)

small scar. Skin clips approximate skin and can be removed in three days. Patient can go home on the fourth day.

Doctors Roy Parkinson and David Stafford presented case reports of mastoiditis with meningitis and miliary tuberculosis.

The feature for Oct. 8th was "Prevention of Urological Pitfalls," by Dr. R. L. Rigdon.

CENTRAL TRAINING SCHOOL OF NURSING AT MARQUETTE UNIVERSITY

Monday, September 15th, witnessed the formal opening of a new department of Marquette University, Milwaukee, namely, the Central Training School of Nursing. The inaugural ceremony was held in the chapel of St. Joseph's Hospital at 8:00 A. M., and consisted of a high mass and a sermon by Rev. P. A. Mullens, S. J., regent of the Marquette University Schools of Medicine and Dentistry, and a member of the training school committee. Taking for his theme the lessons of the day, the Feast of Our Lady of Sorrows, Father Mullens spoke impressively on the nobleness of the nurse's calling and emphasized, as essential to her life, the constant practice of the virtues of sacrifice, patience, and sweet kindliness. The ceremony, enhanced by beautiful floral decorations and music, was inspiring and a most fitting beginning.

Following the ceremony, in the classroom of the hospital the students were addressed by Dr. Louis F. Jermain, dean, and Dr. Joseph A. Purtell, associate professor of medicine, Marquette University School of Medicine. Dean Jermain spoke of the nurse's training in the old days, contrasted it with that of the present, and emphasized the point that now the school of nursing as a department of a university is but a logical step in the progress of education. Doctor Purtell reviewed some of the advantages of the university school of nursing and congratulated both the hospitals and the pupils on the opportunity afforded them by Marquette.

In his opening remarks the instructor in the first course, anatomy, said:

"It is the opinion of authorities, notably that of the Committee for the Study of Nursing Education, that the university school of nursing is an evident step forward—nursing progress, if you will. Therefore, should not at least this community, the state of Wisconsin, and the neighboring states, highly appreciate the foresight and contribution of the President, Father Fox, in embodying this new department in Marquette University? And should not you, the hospitals and students, and we, the teachers, be deeply grateful for the privilege of participating in this, its actual origin?"

The number of students enrolled was seventy-eight, with more to be added within a few days. The Milwaukee hospitals represented were St. Mary's, St. Joseph's, Marquette University, and Misericordia. The courses for the pre-clinical term, which covers a period of four months, are the following: (1) Anatomy, (2) chemistry, (3) physiology, (4) bacteriology, (5) personal hygiene, (6) drugs and solutions, (7) the principles and practice of nursing, (8) psychology, (9) the ethics of nursing, (10) normal nutrition, dietetics and cookery, and (11) physical education.

The personnel of the faculty has been selected from various departments of the University. The plan of the school is based on the survey and suggestions of the Committee for the Study of Nursing Education, and the aim is to develop the training of the nurse in the light of the highest standards. It is hoped that in the near future the curriculum will be so arranged as to enable students adequately qualified, to be graduated with the degree of bachelor of science in nursing. It is further planned to afford opportunities for specialization in the various branches of the nursing field, such as public health, industrial, laboratory, operative, anesthetic, etc.

With a continuance of the cooperation and enthusiasm already manifested by all concerned, success will be ensured, and the Marquette University School of Nursing will become another source of service and pride to the community.